





ALSO INSIDE...

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form follows function



hen it comes to performance cars, surely the emphasis should be on the way they go, rather than the way they look. This is obviously especially true in motorsport where, really, who cares what the car looks like? If its driver is standing at the top step of the podium, then surely the car has done its job and should be applauded for that. However, when you think about it, when was the last time you saw a hardcore track weapon that didn't look good, too? Hmmm. Not very often I'd guess, and that's becasue when it comes to us petrolheads, we see beauty where others see only function. Those who look at a carbon panel or a huge rear wing and only notice the performance benefits of a reduction in weight and increased downforce can sometimes be missing the point. Yes, these are all modifications that make our cars go faster or handle better, but also make them damn sexy, too!

Take Boydon Barlow's bonkers S14 on the cover, for example. Built to full drift specification, the wide wheels with crazy lock angles, the wide arches, rollcage and mighty rear wing mean that it could enter any competitive drift arena with its head held high and expect to see some decent results. However, stick it in the show 'n' shine competition and it'll also clean up the silverware. Read all about it on page 18. Just be prepared to drool!

Another feature car in the issue that owes much of its good looks to the form behind the function is Matt Tate's Subaru BRZ. While under the bonnet is a Litchfield Spec-S supercharger conversion lifting power to over 300bhp, it's the exterior adornments that really set it apart. Covered in Knight Racer carbon aero incluing the splitter, bonnet, wings, doors and diffuser, not to mention a shed-load of under-bonnet and interior panels, the lightweight weave is as much about looking good as it is increasing performance. The fact that it undoubtedly does both is just a happy coincidence. See for yourself on page 72.

But if you're after the ultimate in functional fashion, then look no further than our Ten Of The Best report on page 27. In the gladiatorial bhp battle royale that is TOTB, looks count for little as only the fastest can be crowned champion, but even if it's less about the times and more about the fat tyres, big brakes and muscle-bound aero that gets you all hot under the collar, then there's surely no better place to be. Enjoy!





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Carbon clad and supercharged, this Subaru BRZ is the complete package



See page 80 for great money-saving deals or visit: www.japaneseperformancemagazine.co.uk

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WHAT'S IN O



REGULARS

12 NEWS

First drive: JP gets behind the wheel of the new Mazda MX-5 to see if it lives up to the hype, dates for your diary, Time Attack final round and Japshow finale previews, 5 mins with...Knight Racer's Albert Wong, legendary GT-R hits the UK, SVA Imports and Andy Forrest heading Down Under for WTAC

81 JAPSTUFF

Skunk2 drop-in cams for EP3 Type R, Hybrid Turbos T-shirt summer sale, Roose Motorsport hose kit for Toyota Starlet, ARP harmonic balancer for Nissan GT-R, Ballistic EV02 lightweight race battery, Autograph hybrid carnauba wax, Casio Edifice watch, TDi Evo X transmission rebuild service

86 THE GARAGE

We've gone Honda crazy as our second scorching Civic enters the garage, but this time it's not a budget blaster but a brand new FK2! Owned by Hel Performance, it looks set to be a stunner. Our other Type R is also looking pretty sweet, or at least it will be after its paintjob is finished, while Project White Stuff is primed for its new super stoppers of a disc and pad upgrade



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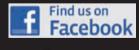
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ALL-NEW MAZDA MX-5 UNLEASHED!

WE DRIVE BOTH VERSIONS OF THE NEW FOURTH-GENERATION MAZDA MX-5



the past few months, you'll know the new Mazda MX-5 has just gone on sale at the end of August. You might not be aware that there's actually two different engine sizes on offer, a 1.5-litre and a 2.0-litre. We were invited by Mazda to hop on a plane to the Western coast of Scotland, and drive both versions of the new car on some cracking Highlands roads to give you our verdict.

The headline news is that the new ND MX-5 is shorter, lower and wider than the outgoing NC model. Even more amazing is the fact the new car is also 55mm shorter, 10mm lower and weighs pretty much the same as the original NA6 MX-5! Mazda has achieved this witchcraft by choosing lightweight materials and removing much of the bulk you normally find on modern cars.

This has been engineered to continue the MX-5's legacy as a pure drivers' car. Which means it's not the fastest, but it is one of the most involving drives you can buy for the money. Talking of which, the new car is much cheaper than the original. Back in 1990, a brand new NA6 would have cost you £14,249, which, taking inflation into account, is equal to £31,687 in today's money. The new car costs between £18,495 and 23,295 on-the-road, depending on engine and spec. There are two engines, a 129bhp 1.5-litre and a 158bhp 2.0-litre. Every car comes with a six-speed gearbox and a manual roof, to keep weight down. There are five spec levels; SE, SE-L, SE-L Nav, Sport and Sport Nav. From a driving perspective, the main difference between SE and Sport is the latter features stiffer Bilstein suspension.

1.5 OR 2.0?

So what's the difference? For a start, one second in the 0-60 time and 6mph at the top end according to Mazda's figures. The truth is that both engines feel similar. We drove roughly 100 miles in both the 1.5 SE-L and the 2.0 Sport, long enough to get used to both versions, and it has to be said we were expecting the 1.5 to be a bit gutless. It isn't. Sure enough ours struggled very occasionally when cruising in sixth up a long hill, no doubt thanks to the combination of 110lb ft of torque and a lengthy 2.866 final drive ratio, fitted to both engine sizes. But then cruising lazily like that is not really what this car is about. The 1.5litre wants to be revved the whole time, and it's fun when you do take it to the redline in each gear. Both engines have 13:1 compression ratios and feel fairly similar, but the 2.0-litre obviously has a bit more torque



//10 THINGS YOU DIDN'T KNOW ABOUT THE NEW MAZDA MX-5

- 1. THE CLOTH ROOF ON THE NEW MX-5 IS 3KG LIGHTER THAN IT IS ON THE OUTGOING CAR
- 2. ONLY THE 1.5-LITRE VERSION WILL BE SOLD IN JAPAN
- 3. THE JAPANESE WILL ALSO GET A UNIQUE VERSION THAT USES THE 1.5-LITRE ENGINE, COUPLED WITH AN LSD AND A STRUT BRACE
- 4. THE ALL-NEW MX-5 IS AVAILABLE IN SEVEN COLOURS: ARCTIC WHITE SOLID, BLUE REFLEX MICA, CERAMIC METALLIC, CRYSTAL WHITE PEARLESCENT, JET BLACK MICA, METEOR GREY MICA AND SOUL RED METALLIC
- 5. THE NEW MX-5 WAS DESIGNED WITH MAZDA'S KODO: SOUL OF MOTION DESIGN PHILOSOPHY
- 6. THIS IS THE MOST COMPACT MX-5 EVER PRODUCED
- 7. THE SWEET SIX-SPEED MANUAL GEARBOX ISNT UNIQUE TO THE MX-5 AND IS ALREADY USED IN OTHER CURRENT MAZDA MODELS
- 8. THE 2.0-LITRE ENGINE IS 8KG LIGHTER THAN THE OUTGOING MZR 2.0-LITRE IN THE NC
- 9. BOTH 1.5 AND 2.0 ENGINES FEATURE A DIE-CAST ALUMINIUM CAM COVER RATHER THAN PLASTIC, A NOD TO THE ORIGINAL AY-5
- 10. MUCH OF THE NEW SUSPENSION IS MADE FROM ALUMINIUM, MAKING IT 12KG LIGHTER THAN THE OLD NC SETUP





and you can feel it. It's definitely the one to go for if you're after more of a daily-driver with the ability to get the roof off. The 1.5 felt sweeter though, maybe one for the purists.

THE VERDICT

The new car lives up to the MX-5 hype and more. It's so much fun to drive! We had some amazing roads to drive on, so you would have to be driving something pretty awful to not have fun, but the route we took through a mix of twisting Highlands roads and sweeping B-roads highlighted everything that is good about the new MX-5. It's not the fastest car you'll ever drive, especially if you're used to lots of boost. It is, however, so involving, there is literally zero play in the steering so the smallest movement of the steering wheel sends the car darting left or right. The gearbox is so sweet you actually look forward to changing

gear, and there's a trick rear axle (fitted with an LSD on the SE-L and Sport models) that gives you so much grip you wonder if the car is wearing semi-slicks. Mazda is claiming 50/50 weight distribution, something that is probably over-hyped in general, but it's impossible to deny you can feel the chassis balance when pushing on. It's that 'Jinba Ittai' horse and rider thing Mazda like to talk about; the moment you want to change direction, the car is ready. For a standard car that has to satisfy regular car-driving folk that often haven't felt what a proper car can do, it really is impressive. We can't help thinking it would be a fantastic base for a supercharger or turbo conversion. We know HKS already have one in Japan, in fact many tuners over there have got their hands on the new car and we can't wait to see who creates the first bigpower one here in the UK. With the fantastic

base Mazda has provided, modified versions would be extremely difficult to keep up with on the kind of narrow, twisting roads we drove the car on in Scotland.

BOTTOM LINE

Mazda told us the new car is just like the old one, it isn't. Driving an old NA8 and the new 2.0-litre back-to-back highlighted just how good the new car is. And so it should be. It's had the benefit of an extra 25 years of engineering progress. What is retained from the original car is that lack of weight and clutter. It's a pure drivers' car. The original MX-5 became a popular car to tune because you started with a fantastic lightweight chassis to build on, and the new car offers that exact same thing while being even more capable on the road. It just needs that extra bit of grunt under the bonnet and it could be a giant killer.



EVENT PREVIEW

SATURDAY 19TH SEPTEMBER TIME ATTACK FINAL ROUND **ROCKINGHAM**

WWW.TIMEATTACK.CO.UK

It's the finale of the 2015 UK Time Attack Championship at Rockingham. It's also the 10th Anniversary of the first ever UK Time Attack event. That event was called GT Battle, and featured some familiar names that are still competing today. Most of the class Championships are still to be decided, including Pro Extreme, the fastest class in Time Attack. Unlike the other rounds this year, this event isn't hosted by a show but shares the circuit with several racing series instead, so you can watch action from the likes of the Ultimate Saloons Championship, too.



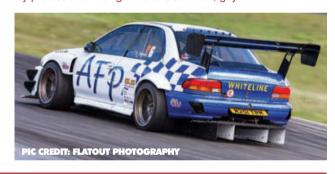
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The last in the Japshow series for this year, Japshow Finale brings to a close both the Jap Drag Series and FWD Drag Series competitions. If you want to get in on the action yourself there's Podkhana, a head-up sprint around obstacles, or straight Run What Ya Brung action on the quarter mile drag strip. There's also the Autoglym Show Car Paddock if you need a break from the action or if it is perfect paintwork that more floats your boat. As always, the FireForce jet car will be there, and there's overnight camping and entertainment available, with a Run What Ya Brung day on Saturday, too. Awesome petrol-fueled entertainment!



SVA IMPORTS AND ANDY FORREST HEAD TO **WORLD TIME ATTACK**

Two of the fastest cars in the UK are heading to the World Time Attack Challenge! The action takes place on the 16th and 17th of October at Sydney Motorsport Park in Australia, and the competition is set to be fierce. Cult figure Under Suzuki will be there in his Scorch Racing Nissan S15 Silvia, as will reigning champions Tilton Interiors with their bonkers Evo. The SVA Imports Evo VI is a new build for this year, with almost 1000bhp plus nitrous oxide injection, Bosch Motorsport electronics and a load of new custom aero. Likewise, Andy Forrest has had to hurriedly put together an aero package for his six-cylinder Impreza that, as a former drag car, puts out over 1000bhp! Both cars hold lap records and will hope to do well, despite heading to a circuit that their rivals know intimately, some being driven by professional racing drivers. Good luck, guys!



DATES FOR YOUR DIARY

What, where and when...







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LEGENDARY GT-R LANDS IN UK

This beautiful piece of authentic Japanese racing history has just landed in the UK. A relic from the 'Godzilla' era of racing, when Nissan Skyline GT-Rs won every Group A Touring Car race for several years, this HKS BNR32 GT-R was raced by Yukihiro Hane and Osamu Hagiwara between 1992 and 1993. It features 600bhp, a ridiculously loud side-exit titanium exhaust and massive slick tyres. It recorded two pole positions and a race win in '93, before Group A was dropped. It's rumoured the GT-R's domination of the event was a driving factor in its demise. It's in the UK until the end of the year and will continue to pop up at events, having already been displayed at Silverstone Classic and Petrol & Pistons at Croft. We want to take it for a drive, now!



NEW CIVIC TYPE-R HITS THE TUNERS

Car tuning companies all over the country are lapping up the new Civic Type-R. We know of several cars that have been purchased so that tuners can start developing parts for the exciting new car, which, unlike many Japanese performance cars, Japan hasn't had months before us, so the UK could well be leading the world in Type R tuning over the coming months, which is an exciting prospect! The current crop of cars, that we know about, are owned by renowned Honda specialists Tegiwa Imports - who have even already set up a dedicated forum for owners of the car, www.civicturbo.co.uk - TDi North and Dream Automotive. Also, if you flick to the Garage section, you'll see the first project instalment of the car owned by Hel Performance, as we will be following this particular build in the magazine as the project progresses.





Q. HI, WHO ARE YOU AND WHAT DO YOU

A. HELLO, I'M ALBERT WONG, OWNER OF KNIGHT RACER

O. WHAT IS KNIGHT

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Q. WHERE IS KNIGHT RACER BASED?

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A. KNIGHT RACER STARTED DURING MY FINAL YEAR AT UNIVERSITY, WHEN I BOUGHT IN MY
FIRST JAPANESE IMPORT, AN R33 GTS-T
SKYLINE. I SOON STARTED GETTING INTO
MODIFYING AND BEGAN SOURCING PARTS
FROM OVERSEAS. THIS WAS A LITTLE OVER
10 YEARS AGO AND EVENTUALLY MY PASSION TURNED INTO A RUSINESS

Q. WHAT DO YOU CURRENTLY DRIVE?

A. SELFISHLY, I HAVE A FEW CARS, BUT AT THIS A. SELFISHILT, I HAVE A FEW CARS, BUT AT THIS MOMENT IN TIME MY BABIES ARE A UK SPEC R35 GT-R RUNNING OVER 800BHP, AND OF COURSE FULLY CARBON CLAD WITH SOME OTHER CRAZY UPGRADES AND MODIFICATIONS. I ALSO HAVE AN AUDI R8 WITH A LOT OF CARBON AERO, TOO, AND A BMW E92 M3, AGAIN WITH LOTS OF CARBON-FIBRE. AS YOU CAN TELL, I LIKE FAST CARS...AND CARRON-FIRRE!

Q. WHAT CARS ARE IN YOUR WORKSHOP AT

A. RIGHT NOW WE HAVE TWO R35 GT-RS A. RIGHT NOW WE HAVE TWO R35 GF-R5 UNDERGOING OUR VERY POPULAR KR 650R PERFORMANCE CONVERSION WITH LOTS OF KR CARBON AERO UPGRADES. A SUBARU BRZ, WHICH WE HAVE DONE A LOT OF WORK ON, WHICH WE HAVE BOOK A LOT OF WORK ON INCLUDING SUSPENSION, BRAKES, HANDLING, ROLLCAGE AND A SUPERCHARGER! ITS ALSO HAD A FULL RESPRAY IN KANDY RED AND OF **COURSE A LOT OF CARBON-FIBRE AERO.** IN FACT, ITS THE CAR YOU HAVE FEATURED IN THIS VERY ISSUE. HES STARTED THE NEXT MODS ALREADY!

Q. WHAT IS IN STORE FOR KNIGHT RACER IN 2016?

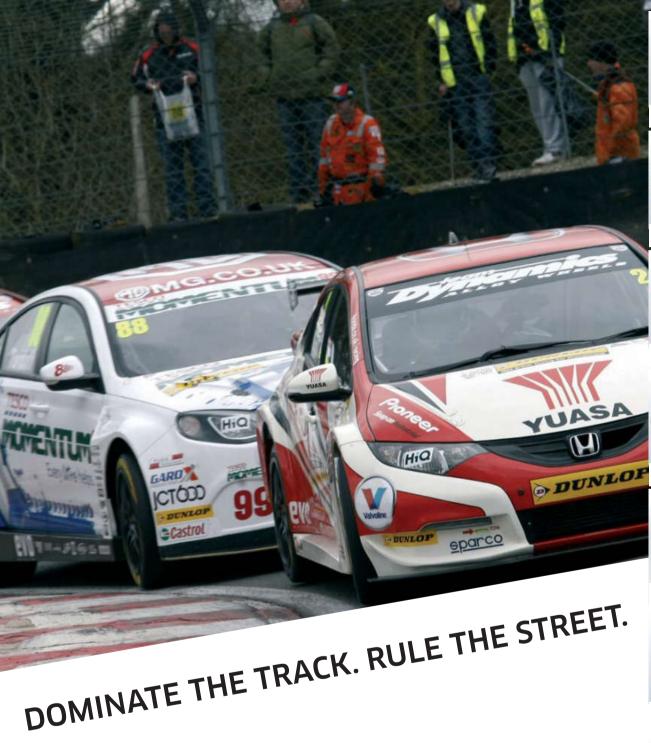
A. THAT'S A BIG SECRET. WE HAVE A FEW NICE PROJECTS IN THE PIPELINE BUT WE ARENT READY TO ANNOUNCE THEM YET. WERE PRETTY EXCITED ABOUT THEM THOUGH, SO WATCH

Q. CAN WE FIND KNIGHT RACER ON SOCIAL MEDIA?

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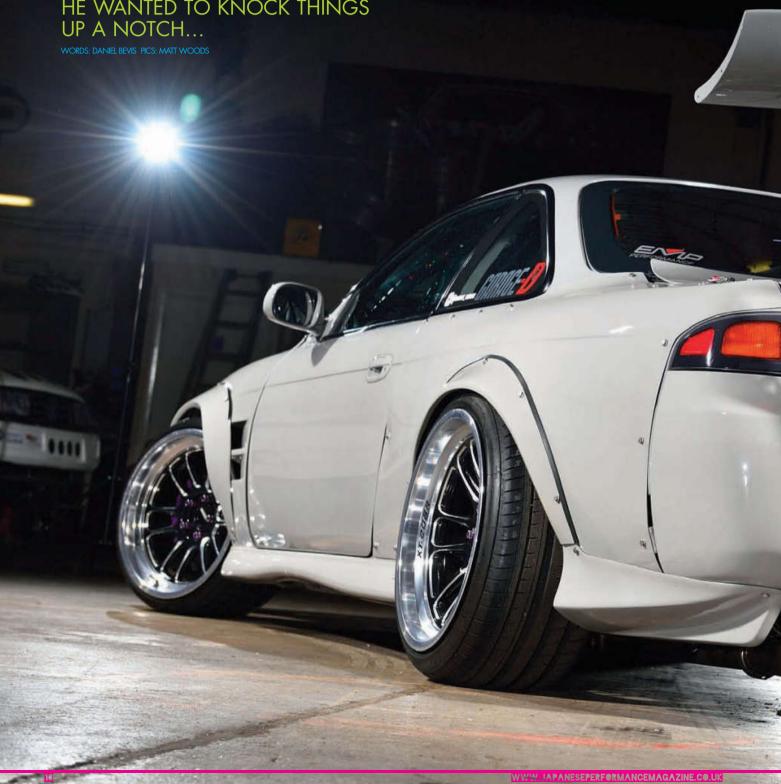
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ESX 80Y

BOYDEN BARLOW'S KOUKI SILVIA IS THE LATEST IN A LONG LINE OF EXTREME ROAD CARS THAT HE'S THROWN AROUND THE ROADS OF ESSEX. BUT WITH THIS \$14A, HE WANTED TO KNOCK THINGS UP A NOTCH...





with your own eyes – absorbing the details, breathing in the ambience – it's what this absurd and illogical hobby of ours is all about.

ours is all about.

Shows are also, by virtue of their very being, great places to find the cars you see splashed across these pages. And while any show of quality will feature a number of projects that stand out for a particular detail each boasts that sets it apart from its





peers - the way it sits, perhaps, or the uniqueness of the wheels, or the improbability of the paint finish - it's not often we come across a car that stops us in our tracks quite as effectively as Boyden Barlow's shiny grey S14a. What is it that catches your eye first - the obscene lock angle? The comically vast wing? The sheer girth of the thing? Or simply the aura of menace that it exudes, reducing all other nearby cars to cowering, whimpering muddles as it bullishly strides into the forefront of your consciousness? Even from a single solitary glance, there was no way we weren't going to be featuring this car.

As you might imagine, the owner of a project like this would have to be guite a

character, and Boyden has 'Colchester' running through him like 'Southend' through a stick of rock. Indeed, his private number plate, currently on his daily-driver Merc C63 AMG, rather cheekily reads 'ESX 80Y'. That's what you can see graffitied under the bonnet of the S14a - a neat way to tie his car history together - and it's a very personal marker that's effectively created his own automotive brand across the eastern county. 'It's got me quite a lot of attention from the police over the years,' he smirks. 'I'm not a naughty boy, I don't misbehave, but it has created a certain reputation...' Let's gloss over the Section 59 that the S14a's straightthrough exhaust has already earned him and begin at the

beginning, shall we?

'I've been into cars since childhood,' Boyden explains. 'I've always tried to do things my way, starting off with my Clio that was featured in Fast Car back in 2009.' (A glance through the archives reveals this to be a smoothed and stripped affair with buckets and a rollcage and yes, that ESX 80Y plate.) 'I then got into RWD, and had a Laguna Seca blue M3, which got me interested in drifting and exploring the limits of traction - but I was spending a lot of money on that car, it was a really in-depth build, so I picked up a cheap S13 to learn to drift properly with something that didn't really matter if it got a bit battered. From that point I found myself in a Skyline, and that was when I fell in love with

the RB engine. I'd always been a fan of the S14 shape, too, so I decided it might be fun to fuse the two together.'

With this fresh concept in mind, Boyden was browsing through the Pistonheads classifieds one day when he happened across an S14 that had already been fitted with an RB straight-six. What are the chances, eh? Feeling a quiver of serendipity, he took himself off to the opposite end of the country to inspect the thing - at night, as you do - and transported the kinky project base back to Essex. 'Yeah, that was all a bit of a mistake,' he admits. 'It was as rotten as a pear! Everywhere I looked I found more and more rot, it was iust a total non-starter. I quess that's what happens when you





look at cars in the dark!' But this setback didn't put him off the idea of an RB-engined S-body; no, it spurred him on. The knackered hulk was tossed aside and he set about sourcing a decent, solid shell in order to put together his own interpretation of the concept. 'Garage-D came up trumps for me, I was delighted,' he recalls. 'They had an S14a bare shell available – a Japanese import, no rust whatsoever – so I bagged it from them and began reshelling the good bits from



THE KOUKI CONUNDRUM
WITH MANY JAPANESE CARS, THE
MODEL NAMES CAN SEEM A BIT
CONFUSING. THE \$14 IS BASICALLY
THE SIXTH-GENERATION NISSAN
SILVIA, AND WAS NAMED AS SUCH
IN JAPAN. NORTH AMERICANS
MAY RECOGNISE IT AS A 2405X.
BRITS SEE A 2005X. BUT WHAT
OFTEN REALLY TWISTS PEOPLE'S
MELONS IS THE REFERENCE TO THE
'KOUKI' OR '\$14K. BUT IT'S
ACTUALLY PRETTY EASY. 'KOUKI'
SIMPLY MEANS 'LATER PERIOD',
AND REFERS TO THE \$14'S 1996
FACELIFT THAT BROUGHT IN
DIFFERENT LIGHTS, BUMPERS AND
SO ON, AND \$14A IS JUST
ANOTHER NAME FOR THIS
REVISION. SO NOT THAT

knackered too...'
It never rains but it pours,
eh? Still, Boyden's not the type
to just lie down and let a project
walk all over him, so he turned

the duff car into the new shell.

that the RB motor was

But, unfortunately, it turned out

to the Internet for help. 'I started looking on the forums, which I'd never really done before, and that same day I found a good engine advertised not too far away in London – forged internals, ECU, turbo, the works. So I picked that up and started building the project



A PEAK OUTPUT OF 477BHP AT 1.1 BAR BOOST IS PRETTY SOLID













up around it.'

But before the drivetrain could be allowed anywhere near the shell, Boyden was insistent that the body was done right. A full rollcage from Custom Cages was fitted before the kouki was sent off to the sandblasters. Who then promptly dropped the shell on its roof. 'I couldn't believe it,' he sighs, smacking his head in desperation. 'If I hadn't had the

cage in there I'd have just scrapped the thing, but a lot of work went into that so there was no choice but to fix the roof and press on. We kept at it, and when it all started to come together I took it off to be mapped...and found that the camshaft had snapped and the ECU didn't want to play ball, either. I was starting to get a bit pissed off with it by this point, to be honest.' Yes, that is pretty

understandable. They do say that good things come to those who wait, but that doesn't take into account the necessity to bang your head against a wall throughout the process. 'I found an RB25 NEO from Garage-D which ended up getting tuned up to around 450bhp, but I reckon that was a bit much for a stock motor and I'd really wanted it forged like it was meant to be in the first place,

so that engine came out again and I had the forged RB rebuilt properly by JDM Garage.' This was the point at which things started to go right, and a peak power output of 477bhp at 1.1bar of boost is a pretty solid testament to that.

'The entire build only took six months from start to finish, including all of the setbacks,' he continues, 'so as you can imagine there were a lot of late





nights and busy weekends. It was pretty common for me to go straight from work to the garage to crack on with it.' Boyden was keen to do as much of the work himself as possible, along with a little help

from his mates, but with such a strong focus on building a drift car he felt it prudent to farm out certain elements of the process. Charlie, a buddy at Essex Offroad, was charged with the task of installing the cage along

with building the custom tube front and tubbing the arches, while Barney Clark at B Clark Body Repair was responsible for slathering the shell in gloss grey – inside, outside and underneath. Torque Developments saw to it that the heavily modified RB25 worked harmoniously with its copious internal and external modifications and HKS management, and Boyden describes custom exhaust and



TECHSPEC

ENGINE

2.5-litre, 6-cyl, 24v RB25DET with forged internals, Garrett GT3076R turbo, Plazmaman plenum and 90mm throttle body, HKS 750cc injectors, solid lifters, tubular manifold, 44mm Turbosmart external wastegate, HKS F-CON Pro 2 ECU, lightweight pulleys, EMP Performance custom straight-through exhaust, AEM water/methanol injection, 55mm radiator and custom intercooler, EMP Performance intercooler pipework, Splitfire coil packs

TRANSMISSION

RB25 gearbox, Exedy clutch, lightweight flywheel, Kaaz 2-way LSD

SUSPENSION

BC Racing ER Series coilovers with external reservoirs, Wisefab lock kit, Japspeed rear control arms, Whiteline anti-roll bar

BRAKES

300ZX front discs and calipers, GK Tech twin rear caliper setup with 4x 300ZX calipers, Wilwood hydraulic handbrake, braided lines throughout

WHEELS

9.5x18in (front) and 11x18in (rear)
Cosmis XT-206R wheels with 215/35/18
(front) and 255/35/18 (rear) Infinity
tyres

INTERIOR

Full Custom Cages rollcage, Corbeau
Pro Series seats, TRS harnesses,
limited edition Personal steering wheel,
Driftworks handbrake lever, flocked
dash with custom centre section
housing 6x gauges, switches and
water/meth controller, Varley race
battery

EXTERIOR

Bare-shell respray in gloss grey, tubbed rear quarters with +50mm glassfibre over-fenders, +30mm glassfibre front wings, bolt-on arches, tube-frame front end, standard bumpers modified to fit custom front splitter and canards, one-off custom rear wing using Big Country Labs blade

THANKS

'Andy, Joey, Scott, Ricki, and all my friends who have given up their time to make the car what it is today, Eldin at EMP Performance, the guys at Torque Developments, Charlie at Essex Offroad, Barney Clark at B Clark Body Repair, and Chris and Mark at BHP for the use of the workshop for the shoot. And sorry to all the girlfriends who've been upset...'





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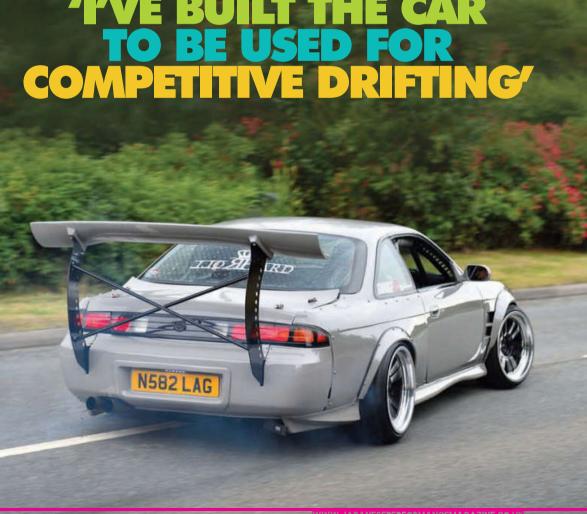
'The car's actually turned out a lot better than it was meant to,' he laughs. 'For something that was always going to be a dedicated drift car, I got a bit carried away with getting all the details right and ended up with a show car! It got a lot of attention at the Players Classic and JapFest 2, and while I've done a few practice sessions at Lydden Hill and what-have-you, I'm really just getting dialed into the car this year – it's been mostly about the shows this

summer. But next year I'll be taking it off the road and using it for competition drifting as much as possible.' And while this may seem like a troubling idea for the concours buffers among you, given the abuse that drift cars tend to receive, it's an entirely appropriate fate for such a hardcore and focused machine. That snorting RB25 with its vast Garrett turbo, the bonkers steering angle, the external-reservoir coilovers, the hydraulic handbrake, everything about it screams 'function'. It just so happens that 'form' is shouted equally as loudly, with everything from the crazy-wide wings to the custom Big Country Labs-based spoiler

MASSIVE ANGLES

DRIFT CARS OFTEN BENEFIT FROM EXTREME ANGLES OF STEERING LOCK, AND THE TECHNOLOGY IS ADVANCING ALL THE TIME. BOYDEN'S 514A EMPLOYS A WISEFAB LOCK KIT, WHICH OFFERS A STAGGERING 65 DEGREES OF LOCK, ALONG WITH PARALLEL STEERING - THAT IS, BOTH WHEELS TURNING AT THE SAME ANGLE. THERE'S ALSO A HIGH ROLL-CENTRE AND STEERING JACKING CONTROL, ALL OF WHICH IS A TECHNICAL WAY OF SAYING THAT HELPS YOU GET VERY SIDEWAYS. IT ENSURES THAT EVERYONE'S JAW IS ON THE FLOOR AT SHOWS. TOO...

marking it out on the showground. It's brash and yet refined; powerful and forceful while retaining an element of suavity. All in all, the quintessential Essex boy.









SUNDAY 11TH OCTOBER 2015











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NOW IN ITS FOURTEENTH YEAR, THE ANNUAL BHP BATTLE ROYALE THAT IS TEN OF THE BEST ROLLS INTO ELVINGTON AIRFIELD FOR THE UK'S TOP TUNERS TO ONCE AGAIN GO HEAD-TO-HEAD TO BE CROWNED 2015'S CHAMPION OF CHAMPIONS

WORDS: CLAIRE MISKELLY PICS: SIMON MISKELLY

hat can we say about Ten Of The Best that we haven't already said each and every year before? To be truthful, not much, and after 13 tyre-torturing years, it is still the only event of its type that happens on UK soil. It also continues to attract the absolute best of the best street legal

cars from all corners of the country and still proves to be one of, if not the, toughest events on the calendar and one which gets great support year-on-year from tuners, private entrants and paying speedhungry spectators alike.

With some prior insider information from the big forums this year,

it was certainly going to be a different event than we'd seen in previous years, as several of the big names were missing from the usual line-up. Having a sprint event the day before, with several of their usual suspects already committed, meant the Mitsubishi Lancer Register wouldn't be putting a full-strength team into battle, and with the reigning TOTB champion, Andy Forrest, who would be competing in the Superlap Scotland event, also being absent, this event was really going to be blown wide open for a new overall champion and new team to take top honours. The pre-event GTROC line

up looked incredibly strong, as usual, as did the 22B squad, and even without the might of some of the MLR's finest competitors and no reigning champ to defend his title, it was still looking like another weekend of epic proportions was due.

Arriving early on the Saturday morning it was





amazing to see the amount of vehicles already in the paddock, the usual GTROC pit area looking fuller than ever with probably 10,000 plus horsepower in that area alone. Unsurprisingly, the R35 GT-Rs look like the weapon of choice this year, along with the unmistakable, hard charging drag GT-Rs of Dave Greenhalgh (R34) and Jeff Ludgate (R33) also in attendance.

The usual MLR pit area was occupied by its one and only team member this year, Keith Bryan, who has proved himself to be ultra competitive on the handling course in past years, and he was very hopeful of big things when we had a chat.

The 22B guys were a little more split-up than usual, but their team looked as strong as ever with the likes of Mikee Singh, Rob Wakelin and Clive Fulcher all in attendance for some Saturday testing, practice and setup.

For those readers new to the event, Ten Of The Best is held at Elvington Airfield near York, a former Second World War RAF base that is home to a 1.9-mile runway which is one of the longest in the UK. It also boasts some huge expanses of open concrete, which makes it a perfect venue for this kind of event as it creates excellent viewing for spectators and also means there's nothing to hit if anything goes awry on a competitor's run.

The event itself is essentially split into three parts: a handling circuit, drag strip and top speed standing kilometre, which starts on the drag strip. Now, to be top dog at TOTB you ideally need to do exceptionally well in all three events. This, in itself, on paper at least, seems straightforward enough, but the requirements to achieve this have evolved over the years to mean you would need a very, very, extreme machine indeed. To give you an idea of the type of monster car required to take the crown, it would need to be akin to the likes of Andy Forrest's incredible Subaru Impreza or Simon

Norris's Mitsubishi Evolution, both absolute beasts which have had years of expensive and extensive development and testing to hone their respective talents. However, with both of these guys absent from

HANDLING CIRCUIT CLASS WINNERS

4WD - KEITH BRYAN MITSUBISHI EVO

FWD - PAUL WADDINGTON HONDA CIVIC EK

RWD - DUNCAN COWPER DAX RUSH TURBO





this year's competition, the whole event was awash with conversations about who would become the new champion.

To create a machine suitable for devouring all comers requires some serious engineering and ingenuity, too, and a walk around the pits confirms there are some seriously good ideas out there. There are also some that, perhaps, are a bit more trial and error, and we'll have to wait and see how they perform in the heat of competition, and Ten Of

The Best is certainly an event that will sort the men from the boys in that respect.

To do well in the drag discipline, minimal downforce, huge power, super sticky tyres and lightning reactions are the order of the day to catapult your car down the strip. Of course, it doesn't take a rocket scientist to realise that this kind of car isn't going to go around corners too well, or be at all competitive on the super abrasive concrete of the handling circuit without some fairly major adjustments and partsswapping between rounds. This is where the knowledge and experience of the teams who have competed here before really shine through, as they are able to make the changes necessary in between rounds to ensure the car stays competitive as the requirements for each discipline change. It's a real masterclass in engineering and teamwork and, once in full competition mode on Sunday, the changes can be completed in double-quick time.

Saturday is essentially a practice day, a kind of a test and tune with competitors getting their machinery adjusted to the tricky surface of Elvington airfield.

With the weather fairly consistent, times were dropping as the day went on, both on the handling circuit and the drag strip, as everyone got used to their cars and the newly laid out handling circuit which, incidentally, is changed every year and is even changed day-to-day, just to keep the drivers on

their toes and negate any advantage that may be gleaned in Sunday's competition from learning the course in practice on the Saturday. The handling circuit was actually closed slightly earlier than planned due to a huge oil spill, which took the marshals and track crew a considerable time to clean up. Just as well it would be a different course for Sunday's competition proper!

Unlike the last couple of years there was no overnight rain, but we awoke to a fairly gloomy





day. It hadn't put off the spectators from coming from far and wide though, and the car park filled quickly, despite the dodgy weather.

What the skies meant for the competitors, however, was that while this cool, dense air

QUARTER MILE DRAG CLASS WINNERS

4WD - DAVID GREENHALGI NISSAN SKYLINE GT-R

2WD - ALLAN DUTHIE VAUXHALL CORSA 11.55 @ 141MPH

RWD - STEVIE ROSS FORD GRANADA 10.88@154MPH would be good for the big power cars on the drag strip, traction would almost certainly be an issue, one that would soon be sorted by extralong, more spectacular burnouts that the crowds of people now filling the grandstands certainly appreciated.

For the eager competitors tackling the freshly laid out handling circuit, the first couple of laps would be used to warm up the cars and get a feel for the new circuit's twists and turns. Learning where to push on and where to ease off

would be the key to getting some super quick lap times as the day wore on.

Entrants only have five timed runs on the Sunday, so getting 'on it' as early as possible is the best way, and with the forecast of rain in the afternoon, everyone was keen to get a decent banker time under their belt on the handling track and the drag strip.

As you would expect, the times came down all day long, until mid afternoon, that is, when the rain came...and boy did it come! Unlike the drag strip which had to be closed on safety grounds, the handling circuit was still in full swing with some super impressive driving from Paul Waddington in his Time Attack K20swapped Civic. His display of precision driving saw him into the very wet FWD shootout along with Dean Pinder in his Tovota Starlet. In the end, Paul blitzed the Starlet's 38.52s lap by just over two seconds to take the win with a 36.23s, which in fact was the overall fastest lap of the shootout, in the

pouring rain!

The four-wheel drive class was headed up by eventual winner Keith Bryan in the sole MLR team Evo with a 37.47s lap time against Martin James in his hard charging GT-R, Martin just losing out to the more nimble Evo on this occasion with a 38.01. Surprisingly, neither of the four-wheel drive cars were able to match the blistering time from the little yellow Civic.

It was a pretty similar story on the drag strip and top speed runs, too, with quarter mile times





STANDING KILOMETRE CLASS WINNERS

4WD - FRANCIS GARCIA NISSAN GT-R 203.22MPH

2WD - STEPHEN BACKLAND VAUXHALL ASTRA VAN 171.92MPH

RWD - STEVIE ROSS FORD GRANADA

continuing to drop and top speeds increasing, until the rain came.

In the standing kilometre, speeds of 190mph+ were achieved 16 times in all, and the event was eventually won by Francis Garcia in his Nissan GT-R – who

had been frankly untouchable all day – with a stonking 203.224mph run. The drag event was hotly contested, too, and was closer than ever with 15 cars running in the ninesecond window, with 11 of those being GT-Rs in one form or another.

Even though, Subaru Impreza pilots Steven Darley and Mikee Singh were trying hard to spoil the party with bests of 9.06s and 9.11s respectively, the mighty GT-Rs of Jeff Ludgate and David Greenhalgh were ahead, with Jeff

running a best of 9.06s and David a winning time of 8.67s. Sadly, rain stopped play, so we had no drag shootout, which was a shame, and with these guys poised and ready to turn up the wick, I'm sure we would have seen at least three or four cars get down into the eights. Not to worry, as there's always next year, fellas!

As was expected after watching some really even racing, top honours were going to be a closely fought thing with several cars scoring points in all three

disciplines. In the end, though, it was Martin James in his Litchfield-tuned Nissan GT-R (pictured above) who was crowned the new TOTB champion with a total of 19 points, just one point ahead of second place man Steven Darley, in the ever impressive Impreza.

Team honours, unsurprisingly this year, went to the GTROC, their domination on the drag strip and top speed events making them very difficult to beat. The 22B crew came in a gallant second, and at this point we must give a special mention to Keith Bryan as the single member of the MLR team who managed to bring the team home in third position overall.

With the rumour mill already in full swing about some epic vehicles being built for next year's event, will we see another new champion or will Martin be back to defend his crown? There's only one way to find out, and that's to return next year as the battle to be the best resumes once more!



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PIPER Stainless Selet Race exhaust manifold & 200CEL Sports Cat

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DC SPORTS Stainless steel SCS cat-back exhaust system (4" round fip)
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SUPERSY NUMBERS Neel straight introdge apple.

ESERGY SUSPENSION Up-rated engine mount insert bush kit.

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Choosing the right combination of exhaust system and filter kit can add up-to +25 BHP power improvements!		

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The logendary Stoptach Big Brake Kir is simply awasome in every way, Using 2-piece 328mm discs and ST40 4-pot callipers the

performance on Dieter to go toke an is saliny weeknole in every way. Coang z-piece 32 collini toks on 3 rat v-por coupes a me performance no fire from this kit is uneed. Essential for ultra fest road or serious track use. Kit romes complete with Zepiece 328mm discs, alloy bells, colipers, pools, hoses and fitting kit. This kit fits behind the original Honda 17" alloy. Choice of Red or Black colipers. ERRODO DS2500 From high performance brake pods. ... 299.50
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ABP are an official UK importer of STOPTECH brakes and offer the full range of high performance brake pads, brake discs and the AWESOME caliper conversion kits. Used extensively in Time Attack series cars these kits are reputed to be the best available. Full range of 4 & 6 pot kits available for most Japanese cars please call for prices to make your car STOP!

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EIBACH produce the Worlds finest springs with quality second to none. Not only do they improve the looks of the car but they also offer better handling with improved ride quality. ABP offer the full range of EIBACH suspension products available including lowering spring kits, suspension kits, alignment products and wheel spacer kits. PLEASE CALL

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F1 and WRC teams



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• 57i induction kits from £64.00



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**Hondo Circl type R EP3 & FNZ From DS2500 Brake pads S99.50
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any modifications to get the best out of your car — This is our passion! From regular manufacturer spec servicing, MOT testing, performance tuning & chassis development to full on track day preparation we can offer the complete service.

ABP's workshop carries Cheshire County Council Trading Standards approval assuring you of the highest quality and 1st class customer service. ABP achieved Trading Standards first perfect 100% mystery shop result in August 2010.

ABP were awarded CAT magazines coveted title of National Garage of the Year in both 2010 and 2011. An award we all take very seriously and testament to our very high standards.

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- Steering wheel miss-aligned?
- Excessive or uneven tyre wear?
- General poor handling?

& handling and reduced tyre wear!



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ABP can 'blueprint' your suspension geometry settings allowing you to benefit from maximum steering response & improved grip along with improved tyre life and increased economy. We have the latest computerised 4-wheel alignment equipment and are able to optimise the geometry settings on your car.

ABP can also offer unique FAST ROAD settings for many cars offering improved handling and turn in by introducing more extreme alignment practices. We can also set your geometry up to your own individual spec for track use or drifting etc.

Please phone for exact prices on your car & prepare to feel the differences immediately.

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HONDA S2000 Check and reset front & rear Wheel Alignment; Camber and Castor angles to Fast Road or Honda spec...£140.00£155.00 ABP Fast Road spec. These improve the EP3 massively. Improving turn in, reducing under-steer and offering greatly improved feel

Honda Civic Type R FN2 ABP Stage 1 Fast Road suspension geometry set-up (Including camber bolts) This set up includes supplying & fitting adjustable front camber bolts, reset the front Wheel Alignment & Camber angles to ABP Fast Road spec. These improve the FN2 massively. Improving turn in, reducing under-steer and offering greatly improved feel & handling. Honda Civic Type R FN2 ABP Stage 2 Fast Road suspension geometry set-up (Including bolts & rear shim kit)£224.00 As above but stage 2 also includes removing the rear hubs, fitting correct camber & toe shims (included in price) and setting both

front and rear geometry to fast road spec. SUSPENSION AND LOWERING

ABP can provide various levels of suspension tuning for all Japanese vehicles. We offer a full fitting service on over 7 manufacturers lowering spring options, numerous sports shock absorbers and many complete adjustable suspension kits including fully adjustable coil-over kits.

Spring kits available from EIBACH, TEIN, SPAX, H&R, GMAX, KW and Pi Shock Absorbers available from KONI, BILSTEIN, KW, SPAX and EIBACH

Suspension kits available from EIBACH, KONI, BILSTEIN, TEIN, KW, H&R, SPAX & GMAX .from £295 00 Lowering spring kits supplied & fitted Sports suspension kits supplied & fittedfrom £445.00

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Suspension kit fitting	from £165.00

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Timing / Cam belts fitting	
Clutch kits fitting	
Pre / Post Track day check-over	trom £55.00

Please phone ABP's workshop on 01270 567177 for accurate prices on fitting parts to your car or to arrange a workshop booking time.

ALL CARS CATERED FOR — PLEASE CALL





DOUBLE WITHATWIST

TOYOTA CHASERS AREN'T A COMMON SIGHT IN THE UK – PARTICULARLY WHEN THEY'RE AS EXTREME AND DRIFT-FOCUSED AS THESE TWO. WE TAKE A CLOSER LOOK AT A VERY SPECIAL HIS 'N' HERS COMBO...

WORDS: DANIEL BEVIS PICS: MATTHEW DEAR



JDM GARAGE UK
BOTH OF THESE CARS CAN BE
FOUND LURKING MENACINGLY AT
JAP IMPORTS UK. THIS IS A
COMPANY THAT'S BEEN BRINGING
QUALITY JAPANESE METAL TO OUR
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INSPECTING POTENTIAL STOCK.
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THEY'RE HAPPY TO IMPORT TO
ORDER AS WELL AS TAILORING A
CAR TO YOUR SPECIFIC
REQUIREMENTS. TAKE A LOOK AT
THEIR STOCK LIST, THERE'S SOME
FUN STUFF IN THERE - STICK
BILLY/JAPIMPUK INTO YOUR
BROWSER FOR A GANDER

s fans of terrible 1980s movies will no doubt attest, twins can be entertaining things - and if the Schwarzenegger and DeVito cringefest Twins is anything to go by, they don't always have to look a lot like one another, either. But of all the types of twins, identical ones are by far the best, simply for the element of mischief that's inherent in their very being - clone brothers or looky-likey sisters can have endless fun pretending to be one another to freak out their mates, or scaring local elderly folk into thinking they're suffering from chronic déjà vu, or simply screwing their siblings over by signing for parcels that

arrive in their name or remortgaging their houses without them knowing. So much potential for comedy.

Now, the twins under scrutiny today are, as you've probably spotted, a pair of Toyota Chasers. For the uninitiated, this is a model that offers much scope for confusion, so here's a basic history lesson: The firstgeneration Chaser appeared in 1977 as one of a set of Toyota triplets (further emphasising our convoluted theme of zygotic siblings), sharing the chassis of the Cressida/Mark II and the Cresta. With me so far? Toyota were basically taking several bites of the cherry, selling quitesimilar cars in separate outlets and market niches. These triplets sat below the flagship Crown, offering similar luxury with a sportier outlook and less aggressive tax liabilities.

Still here? Good. If we fast-forward a few generations, we arrive at the sixth, and final, iteration of the Chaser, launched in 1996. It was a diverse proposition; if you wanted to focus on the luxury angle, you got an Avante – if sportiness was your bag, you went for a Tourer. Either way you got a 1JZ engine, which is good news in anybody's book – that's a 2.5-litre straight-six with, in this guise, a single turbo and VVTi. Without complicating things any





further, what we're talking about is a JDM four-door with a focus on luxury, a pocketful of horsepower that's bursting at the seams, and enough girth and road presence to suggest that the character behind the wheel is either a yakuza boss or somebody working directly for one. It's a fairly intimidating piece of kit.

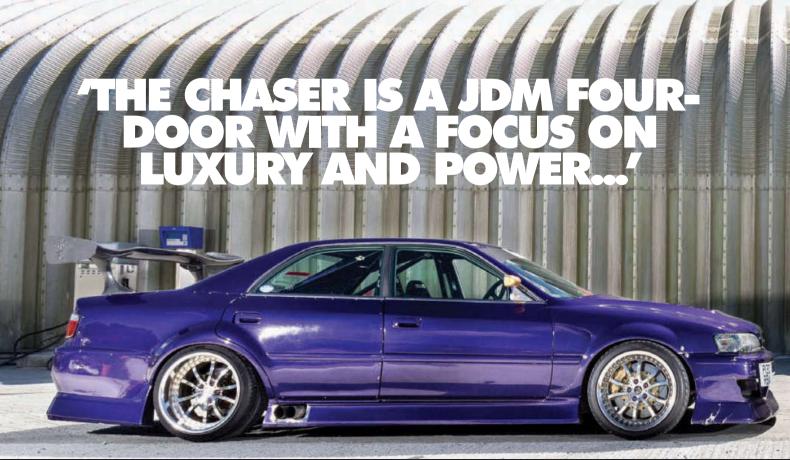
A well-documented factlet of the mystery of identical twins is that it's often only themselves and the parents that can tell them apart; they may have different freckle patterns, or one might sport a shade of hair colour that's just a micron further up the Dulux chart than the other, but it's an infinitesimal difference that allows them the freedom to indulge in japes and hijinks. But fortunately for the credibility of this feature, it's pretty obvious that the Chasers we're gawping at are pretty distinct from one another, so you don't think we're just printing the same single-car shoot twice. I mean, one's purple and the other's brown, for a start. So how did this Dairy Milk-themed duo come to be over here, terrorising our tyre outlets and making a nuisance of themselves?

The answer lies within JDM

Garage UK, a specialist importer of badass Japanese motors that flick the switches of people like vou: if vou're after a Calsonicliveried R32 or a panda-hued AE86, they're the ones you call. It's a family business - Natalie, Paul, and Paul's mum Rosemary are the happy trio with their names above the door, and paving them a visit also reveals Joe in the office, Janis in the warehouse, and John the engine builder. 'We usually have around 5-10 cars in stock,' Natalie explains, 'and at the moment we have about 25 on the water coming in from Japan, with more waiting at the docks.'

The company offers a personalised import service, a range of sales packages, and they also deal in spares and parts, too. Along with engine rebuilds, custom work and tailored upgrades, it's pretty much the full package. Oh, and they seem to rather like Chasers...

'Paul bought me the brown Chaser as a present for our first wedding anniversary back in October last year,' says Natalie. 'It arrived in the UK on Christmas Eve, and I collected it a few days later and my dad trailered it home for me. We bought the car from Yahoo!





Japan, via our agent over there who we've been working with for fifteen years. Aside from what was listed in the advert, we didn't know a great deal more about it, other than it looked great and had a decent spec. When I got a copy of the export certificate, the previous owner's name was on it, so I decided to look him up on Facebook; I found him and added him as a friend, which proved to be pretty useful as he spoke some English.' Social media really can be handy in these circumstances, can't it? Having tracked down the guy who built the Chaser up to this

spec, Natalie learned that he'd used it primarily for drifting, and was happy to send over lots of photos and videos of it in action. It also transpired that he'd done the majority of the work on the car himself, so was able to answer any questions they had about the spec.

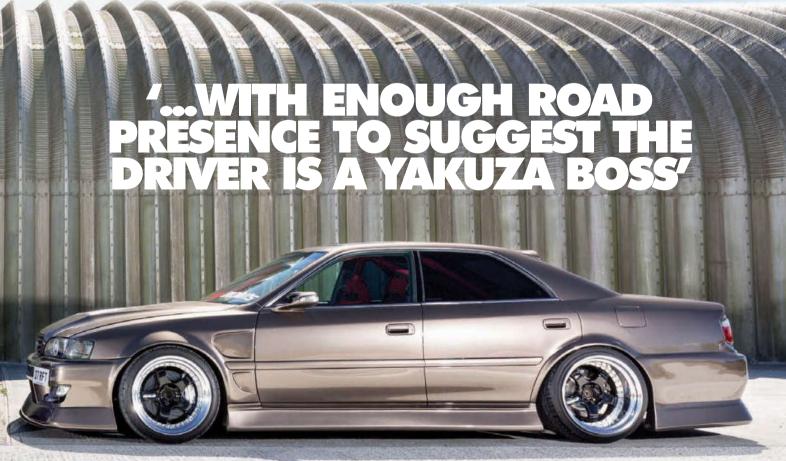
The sturdy 1JZ-GTE turbo motor is augmented by a GReddy FMIC and improved fuelling, along with the obligatory aids to get the air in and out more efficiently, and this power hike is complemented by a raft of chassis tweaks to keep the thing planted but get it sideways on demand: coilovers

from 326Power, copious bracing and stiffening, fancy camber arms, the works. A manual 'box, two-way LSD and drift handbrake button all help with the sideways sliding bit, too!

'When the car got here the bodywork wasn't as perfect as I wanted it to be,' Natalie recalls. 'It had sustained a bit of damage in transit, and the body kit just didn't fit quite right, so we decided that because it was winter we would have the bodywork repaired and the kit made to fit better. This then turned into a five-month project!' These guys, if you hadn't deduced already, are

WORK WHEELS

WORK WHEELS
THESE CHASERS BOTH FEATURE A
BIG NAME IN JOM WHEELS: WORK.
THIS IS A COMPANY THAT'S BEEN
AROUND SINCE 1977, SO THEY'RE
PRETTY PUNK IN THEIR OUTLOOK,
AND THEY'VE BEEN FUSING
RACE-DERIVED TECH WITH
OUTSTANDING AESTHETICS SINCE
BEFORE YOU KNEW THAT WAS A
THING, THE 3-PIECE MEISTER \$1S
ON THE BROWN CAR ARE A
CLASSIC DESIGN THAT'S PROVED
ENDURINGLY POPULAR, WHILE
THE PURPLE CAR'S BERSAGLIO
\$105S ARE A RATHER MORE
OBSCURE AND UNUSUAL CHOICE;
ONE FOR THE ENTHUSIASTS. IN
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WORLD OF TRACKING DOWN RARE
AND DISCONTINUED RIMS, THE
BERSAGLIO IS A PERFECT
EMBELLISHMENT FOR THE
LESSER-SPOTTED CHASER



TECHSPEC

ENGINE

2JZ-GTE 3.0-litre straight-six,
BorgWarner EFR turbo, Haltech ECU
mapped by MB Automotive, CX Racing
top-mount stainless steel exhaust
manifold, HKS external wastegate,
A'PEXi air filter, Q45 throttle body,
GReddy inlet, Sard fuel pressure
regulator with gauge, GReddy oil catch
tank, aftermarket power-steering pot,
800cc Sard injectors, Kazama Auto
engine mounts, alloy radiator,
Mishimoto intercooler with custom
short pipework, oil cooler kit with filter
relocation, HKS oil filter

TRANSMISSION

JZX100 gearbox, ATS twin-plate clutch, Limited slip differential

SUSPENSION

Aragosta coilovers, Megan Racing rear arms, Hey Man 800ps knuckles, adjustable front upper arms, roll-centre adaptors, custom front member, Ikeya Formula lower arms and tension rods, Kazama Auto tie rods, JZX110 tie rod ends, aftermarket rear subframe collars

BRAKES

GReddy/GREX 6-pot front calipers

WHEELS

10x18in (front) and 11x18in (rear) WORK Bersaglio wheels

EXTERIOR

BN front wings, rear overfenders and door panel, aero kit and FRP bonnet, Koguchi Power carbon-fibre spoiler,

INTERIOR

Recaro front recliners, Nardi suede steering wheel with Sparco snap-off boss, Nismo gearknob,

6-point dash-dodger rollcage with door bars and cross bar, battery relocated to rear, RacePak dash, GReddy Profec boost controller, external fuel pump





perfectionists. They have to be, really - after all, any Japanese ride that has them sitting inside is an advert for the business, right? 'It was a friend of ours who did the body - he used to work for us back when we had a bodyshop as part of the garage, and now he's at Petersen Engineering who restore classic Bentleys. He did all the work in his spare time, evenings and weekends, and RHM Bodyshop in Launceston very kindly let us use their spray booth to paint the car - everything else was done in-house.' While the car was dismantled, they took the opportunity to pull out the motor and give it a refresh, courtesy of JDM Garage's engine builder

John, who's spent the last couple of decades elbows-deep in race engines; it was then mapped by Martin Battye of MB Automotive.

'People's reactions to the car have really surprised me, I can't believe how much attention it gets wherever it goes,' Natalie laughs. 'When I was stuck in traffic leaving Trax I had five people pull up beside me asking what it was! And when I was on the way to Japfest with a friend I had a little girl and her dad driving next to me on the motorway taking photos and videos of the car...it was so embarrassing!' But cars like this need to be visible, don't they? In order to remain distinct from its purple twin, this brown Chaser

shouts pretty loudly with its BMW paint and aggressive attitude.

The purple Chaser, however. is doing a pretty solid job of shouting loudly, too, not least due to its 2JZ-GTE engine, the 3.0-litre bigger-brother of the twin car's 1JZ. 'We bought this car from a friend in Japan, as I fancied something a bit different to use for some drift days,' Paul tells us. 'It caught our eye as it was pretty different to what was on the scene in the UK. We didn't really know a lot about the car's history in Japan, except that it was owned by a rich guy who had the car built, used it a few times at Nikko, and then sold it on to our friend.' The spec sheet spoke for itself, though, and you





can tell that a lot of cash has been poured into the car: the 2JZ produces around 600bhp thanks to its vast BorgWarner EFR turbo and a host of HKS and GReddy trinkets. Upgrades throughout the chassis are either custom, adjustable or both, while GREX 6pot brakes do an enthusiastic job of hauling the thing up. And while its brown sibling luxuriates in EK9 Civic Recaros and opulent trimming, the purple car is far more track focused, being stripped save for a dash-dodger cage and Recaro recliners.

'When it got here we put a load of new parts on it, including the EFR turbo and CX Racing manifold, and had a conversion loom made to enable us to use

the Haltec ECU,' says Paul. 'We shortened the intercooler pipework, fitted a new Mishimoto intercooler, and the fuel system was remounted and tidied up. Then we had it mapped by Martin at MB Automotive, who put an incredible amount of work into this car for us! Tom from Mil-Spec did all of our fabrication work on this car too - a lot of effort has gone into making this Chaser what it is.' Thus far, the guys have exploited that capability to the full, running the car in the Drift Outlaws series with drift team driver Leon Parkes at the wheel. and it's not showing any signs of slowing down yet...

The brilliant thing about Chasers is that most people don't

know what they are. There's a huge amount of one-upmanship in any automotive scene, and a key part of this is the kudos of knowledge: being able to eye up a set of retro rims or a rare boot spoiler and immediately provide a name for it. So having a model that, by its nature, causes people to scratch their heads in bewilderment, is worth many scene points in the game of Show Car Top Trumps. That Paul and Natalie have a pair of them, each with bona fide drift credentials and impeccable presentation, is the delicious icing on a very obscure cake. To paraphrase the cheeky questioning of the car mags of the 1990s, then - do you like it purple or brown? III



ENGINE

1JZ-GTE 2.5-litre straight-six, JZX110 turbo, custom manifold with external wastegate, custom stainless steel exhaust, GReddy front-mount intercooler with custom hard pipes, A'PEXI Power FC with hand commander, GREX oil filter relocation with oil cooler, HKS mushroom air filter, HKS Kansai front strut brace, HPI aluminum radiator, HKS direct induction kit, SARD 265 fuel pump, Tomei turbo outlet pipe

TRANSMISSION

R154 5-speed manual gearbox, Ogura Racing twin-plate clutch, 2-way LSD

SUSPENSION

326Power coilovers, D-MAX rear subframe bracing with bushes upgraded, lkeya Formula front lower arms, steering and camber arms, upgraded drop links, 326Power front knuckle extenders, lkeya Formula rear camber arms

RDAKES

Stock, with upgraded grooved discs

WHEEL C

9.5x18in (front) and 11.5x18in (rear) WORK Meister S1 wheels

INTERIOR

Honda Civic EK9 Recaros, throughdash rollcage, Nardi steering wheel, Blitz turbo timer, Blitz SBC i-Color boost controller, drift handbrake button, Defi boost/oil pressure/water temperature/oil temperature gauges, chequered floor mats, dashboard matting, Kenwood double DIN touchscreen head unit, upgraded speakers, subwoofer in parcel shelf

EXTERIOR

BMW metallic brown, BN Sports bodykit, custom front wings, glassfibre bonnet, BN roof spoiler, HID headlights with angel eyes, D-MAX rear lights, crystal indicators, custom mirrors with side repeaters











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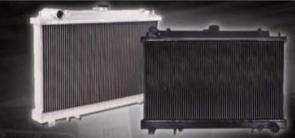
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US EVO FAN MICHAEL EDNILAO PULLED OUT ALL THE STOPS TO EVOLVE HIS LANCER FROM STOCK TO STUNNING IN RECORD TIME FOR ITS DEBUT SHOW APPEARANCE

ACCELERATED EVOLUTION



uilding a project car can be a long and arduous process. From the extensive initial research that you put into deciding which make and model of car should receive your undivided attention next, right through to the exhaustive selection process of test-driving and scrutinising each example as you whittle your short list down to 'the one'. And that's all before you've even got the car sitting on your driveway! You've then got to plan the build, from the selection and sourcing of parts to the logistics of getting them all fitted in the right order to avoid having to re-do work that has already been done, right

through to picking which aroma of air freshener will be gracing your rear view mirror. Don't get us wrong, this process is all part and parcel of the fun of the build, however, just sometimes, wouldn't it be nice to be able to press fast forward and whizz our way through the quagmire of toil, stress, grazed knuckles and the decreasing weight of your constantly moneyhaemorrhaging wallet and get right to the fun part of driving it?

right to the fun part of driving it?
For some sado masochists who seem to only be interested in the hard graft stages of a project – the ones that all too often get bored and sell on their freshly finished rides in search of a new

vessel for their blood, sweat and tears just days after finishing them - probably not. But for the rest of us, the answer is very likely to be yes. But as the men in white coats are currently too busy smashing protons together in the Large Hadron Collider to dream up such things as a remote control for tuning fans, we of the impatient type are left with two options: buy a premodified example and accept the fact that we are driving around in someone else's vision, or simply pull out all the stops to turn our cars from standard to stunning in a matter of days, rather than months - it's amazing what you

can accomplish if you put your mind to it...and you don't mind not sleeping for a week!

Not one to be happy with simply buying his way to a show quality ride, San Francisco-based Evo nut Michael Ednilao decided to go for the latter option when tuning his immaculate Mitsubishi, and the results are a real eyeopener of what is possible in an extremely short timescale... even if his own peepers were being held open with matchsticks by the end!

'Believe it or not, the car was more or less stock up until a few weeks before I debuted it at the Blox party event in the Bay Area this past summer,' laughs Michael. 'It all started one night, while I was out drinking with my buddy, Eric Tsoi, who is the owner of local auto parts and supplies shop Inspire USA.'

If it sounds like a familiar story at this point, you'd be right. We've all done it. After the fourth or fifth bottle of Corona, who hasn't ended up getting carried away with the thoughts of future plans for their latest project? Especially when you're being egged on my your equally inebriated mates.

'If anyone overheard our conversation, I'd forgive them for thinking we'd had a few too many and were likely to rethink our plans after we woke up the next morning with a banging headache,' Michael laughs. 'But the truth is, we really did it!'

Michael and Eric's outlandish plan was to totally transform the then bone stock Evo into a ride truly worthy of gracing the Blox show display area. It wasn't necessarily the amount of work that they planned which was pushing any boundaries, but the

timescale, as it all needed to be completed within the next three weeks if they had any hope of getting the car complete and to the show on time.

'I'd originally planned to enter the show with the car as standard,' Michael recalls. 'But Eric was having none of it. He persuaded me to go all out to get it ready for the show, so we hit the ground running and never looked back.'

The very next day, rather than nursing the after-effects of the previous night's alcohol consumption, Michael stuck to his word and a brand new set of 10.5x18in CCW Classic split rims with 245/40/18 Falken tyres were bolted on to the Evo's four corners, instantly transforming his ride from stock to...well, less stock, at the time.

'The wheels were super wide, and were threatening to foul the arches, especially after we fitted a set of Stance coilovers to lower the body and improve the handling,' says Michael. 'So I began looking at wide-body options to flare the arches, add aggression and presence and fit the wheels better.'

With time running out, Michael didn't have the luxury of weeks of

researching which kits were available and where he could get them at the best price, so he simply put his hand in his pocket and picked the kit that he felt best suited the Evo's lines and the look he wanted to achieve.

'I really liked the look of the Voltex track-version wide-body kit,' he says. 'It's such an aggressive kit and being widearch I knew it would fit the wider wheels perfectly so I ordered it straight away.'

While he was awaiting the arrival of the kit, he got started on the engine. As the car was still being used as his daily driver, and because of the limited time available before the car was to hit the show 'n' shine competition, Michael didn't want to go overboard with the tuning and focused on cleaning up the bay and adding a few choice upgrades that would not only improve performance, but also provide some essential underbonnet eye candy.

'I'm a massive fan of ARC products,' Michael reveals. 'I'll travel far and wide, including shipping parts from all over the world if I have to, in order to add rare, discontinued and exclusive parts to my car. It's a bit of an

addiction, really. But I just think that the quality of the ARC products are second to none, so I'm happy to indulge my fetish every once in a while.'

The list of products in the bay of Michael's Evo that carry the revered three letter moniker reads more like a catalogue than a spec list. A front mount intercooler, radiator, radiator cap, heat shield, oil cap, cooling plate, intake box, spark plug cover, radiator hose and oil catch tank all bear Michael's favourite brand.

With the engine suitably ARC'd up, Michael swiftly moved on to the Evo's innards where the standard interior was stripped before being replaced with a Cusco six-point dash-dodger rollcage with Sparco harness bar along with a pair of Bride Ergo seats with Takata harnesses to ensure maximum scene points. A Key's steering wheel with NRG quick release boss replaced the Lancer's stock item while a dashmounted ATI gauge pod was fitted, housing a triplet of Defi gauges. However, as this was still a show car as much as a go car, Michael decided the audio should be uprated, too, with a Pioneer double DIN headunit sitting in pride of place at the















'EVEN THOUGH I DIDN'T WIN, ALL THE HARD WORK PAID OFF'



TECHSPEC

ENGINE

2.0-litre, 4-cyl, 16v 4G63 engine, ARC intercooler, radiator, radiator cap, heat shield, oil cap, cooling plate, intake box, sparkplug cover, radiator hose and oil catch tank; ETS polished intercooler piping, full stainless steel exhaust system

TRANSMISSION

Factory six-speed manual

SUSPENSION

lowered on Stance coilovers all round, ARC front strut brace

BRAKES

Factory discs and fast road pads front and rear

WHEELS & TYRES

10.5x18in CCW Classic split rim wheels with 245/40/18 Falken tyres

EXTERIOR

Full Voltex track-version widebody kit including front and rear wide and vented arches, side skirts, front splitter, canards and rear diffuser, V-mount high-level rear wing, body painted in factory Mitsubishi white

INTERIOR

Stripped out interior with Cusco 6-point dash dodger rollcage with Sparco harness bar, Key's steering wheel with NRG quick release boss, Defi gauges in dash-mounted ATI gauge pod cluster, Bride Ergo reclining seats with Takata harnesses, Pioneer double DIN headunit conversion, 2x Kicker 12in subs in the boot

THANKS

Eric Tsoi and the crew at Inspire-USA, Bret Dionisio, Martin Topacio, my brother Gernie Ednilao, my wife Mimi Ednilao, www.ccwheel.com, mackinindustries.com (ARC)





system's centre, controlling the output to the car's factory speakers and a pair of Kicker 12in subwoofers in the boot.

But, as they say, time stands still for no man, and while Michael had been cracking on with the engine and interior, time had ticked on and the show deadline was drawing near.

Luckily, with only a few days left to the event, the kit arrived, so Michael grabbed a handful of good friends and dedicated the remaining time to transforming the bodywork. Day one was set aside for test-fitting the kit, which was an essential step to ensure every panel fitted as it should before committing the car to the paint shop, as it would soon eat up valuable time if the bodyshop needed to carry out any alterations to get the kit to fit.

Luckily, being a genuine Voltex kit from Japan, the fit was



flawless, so the next day the car was sent to paint.

The next few days were agonising for Michael, as all he could do was twiddle his thumbs in anticipation of the painted shell being returned. And just when Michael thought that he was going to miss the event – the show was on in just two days' time – the phone rang and the bodyshop confirmed that the Evo was ready for collection.

Having stripped many parts off the car before it went to the paint shop, it was now a race against time to get everything back on, working right and looking good before the day of the show arrived. Sleep was not an option, sick days were used and Mimi, Michael's wife, didn't even see him for those last two days because he was working nonstop to get the Evo finished in time. It was a close call, but

somehow Michael pulled it off.

The next day at the show proved invaluable. It's one thing when people gather to take photos; but it's an altogether more special moment when you see people's reactions when they check out the finished product. It's an indescribable feeling to know that people appreciate what you've done to any project. 'That really made my day,' Michael says, 'And even though I didn't win an award. I knew all the hard work had paid off.' And the best part is; now that he's gone through the relatively short, yet intense period of pain and sleepless nights of getting the project to where he wants it, he can now kick back, relax and enjoy his awesome showstopping Evo in the knowledge that all the hard times are behind him. Until the project's next evolution, that is! 11































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BUILDING A PROJECT CAR DOESN'T HAVE TO COST A PACKET. BY GETTING HIS HANDS DIRTY AND SOURCING MOST OF HIS MODS SECONDHAND, CHRIS THOMAS HAS CREATED A CRACKING MX-5 WITHOUT BREAKING THE BANK

WORDS & PICS: DAN SHERWOOD

or the majority of people, modifying and tuning a car can prove to be a pretty expensive business. Even for those lucky enough to bag a bargain as the base car can soon find their funds dwindling as the cost of the purchase and fitment of their chosen parts by their trusted tuner soon puts a strain on their ever-lightening wallet. But, while this may be a common route to motoring nirvana, as the work carried out by the professionals should see the project come along quickly and with the minimum of drama, there is another more frugal way to get your fourwheeled fix, it just involves getting your hands dirty...

'I've always been into cars, but I'm not in a position to go spending thousands of pounds paying someone else to do all the work, plus I get a kick out of doing things myself, not to mention it saves me a stack of cash!' laughs 23-year-old Chris Thomas when we meet him at Rockingham Raceway's Japfest 2 event where his car is gracing the Adrian Flux insurance stand, draped with the lycraclad bodies of the busty Flux babes. 'I have my insurance with Flux and they do me a great deal, even with all the mods declared, which some brokers baulk at.

Not wanting to get in the way of the show's paying punters who are eager to get an eyeful of Chris's radical ride, plus a sneaky peak at the plunging cleavages and cunningly concealed camel toes brought about by the babes' tightly clinging clothing, we kick back and enjoy the event and pick things up again

at sunset when the show is all but packed up and gone. Pointing our Nikon lens at the backlit beauty sitting pretty on the rubber strewn Tarmac. which only hours earlier was a temporary drift track for the BDC's best to strut their stuff in a drifting and donuting show of spectacular proportions, Chris's MX-5 is looking impressive. 'In total the project has set





THE WHOLE BUILD HAS COST ME JUST OVER £3K, AND THAT INCLUDES BUYING THE CAR!

me back just over £3k, and that includes buying the car, which I think is pretty good going,' grins the Mancunian Mazda fan.

And we have to agree. That small sum would struggle to pay for the majority of the rims seen on many a ride in the Jap scene these days, especially with the trend towards people's preference for only fitting the rarest and most honourable of JDM models and brands to their cars, which is fine if you can afford it, but can smack a little of elitism when the 'haves' look down on the 'have-nots' and judge their cars so harshly for their wheel choice. (Now endeth the sermon!)

'It all started when I bought the car about a year ago,' recalls Chris. 'It was pretty stock except for a set of HSD coilovers, which, along with the fact that it was summer and I really fancied a convertible, is what made me buy it really.'

Chris bagged the then not so beautiful MX-5 for just £800. However, as things that are cheap usually turn out, it wasn't

in the best condition.

'It was a little rough around the edges, but I thought I'd take a punt on it,' Chris says. 'All my mates told me to stay well clear of it and that it was a dog, but I thought, for that money, what was the worst that could happen?'

As it turns out, the worst that could happen was that the engine would blow just two weeks into Chris's ownership!

'The timing belt stripped its teeth and I thought the engine was ruined,' remembers Chris. 'I found out later, after having bought a new engine and gearbox for £150, that the MX-5 motor is a non-interference design, and that I probably could've simply replaced the cambelt and it would've been fine. However, as the old engine had a misfire too, I thought starting from fresh may kill two birds with one stone.'

Unfortunately, although Chris's bargain motor and 'box dropped in without complication, they didn't solve the misfire, which was later traced back to a faulty lambda sensor and dodgy coil-pack.

'I fitted the new engine myself on my driveway, which is where I do all the mods on the car,' Chris reveals. 'I've got a garage, but it's used more to store parts than the car. Besides, with the huge Japspeed wing that now sits on the rear of the car, it's now too wide to fit in the garage anyway!' he laughs.

With the new lump installed and finally running sweetly, Chris decided to clean up the engine bay and generally give the car a going over with the modifying stick.

'I fitted silicone hoses under the bonnet, a Kode deep-dish steering wheel and installed a new soft top as the old one was tatty and leaked when it rained,' he says. 'The car was red back then and I was going to go for a Euro look with smooth lines and small wheels, but then I saw something that changed my mind...'

The inspiration that swayed Chris's intentions with the, then

mild, Mazda was a picture of a seriously wild white widearched Five from the US.

'That picture blew me away and I knew there and then that was the direction I wanted to take with the car,' Chris says. 'It had a hard top, Bomex bodykit, Rays wheels and a huge rear wing. It looked like a racecar for the road.'

Straight after Chris's automotive epiphany, he began scouring the Web for the parts he'd need to create his masterpiece. Luckily, he didn't have to search very long as a pair of Bomex side skirts and front bumper came up on eBay.

'I managed to get the front bumper for just £30 from a guy who was breaking a Five but didn't know what he had. It was a steal!' Chris chuckles. 'I then decided to respray it myself using matt grey paint from a bunch of rattle-cans.'

With the basis of the look taking shape, Chris knew that the right choice of wheel could make or break the car, so when a set of bright yellow 8x15in





THE CUSTOM EXHAUST EXITS ABOVE THE REAR DIFFUSER'

from GC Fabrications which Chris himself painted yellow to match the wheels, but there were always bigger plans in Chris's mind.

'I drove the car like that over the winter, then around May of this year I decided the car needed a refresh, so I took it off the road and that's when the serious work began,' Chris explains. 'It started with sorting the braking.'

Chris went over the stoppers from the ground up replacing the discs, pads, calipers, lines and fluid with uprated items from EBC and Hel.

'I hadn't realised before, but the rear calipers were binding,' he says. 'So fitting new brakes not only meant I could stop quicker, but the car also accelerated quicker too, as it wasn't being held back by the seized brakes.'

While he was at it, the bodywork also got a refresh in the form of a set of Fast5 wide bolt-on arches, MD1K ducktail spoiler and a Garage Vary-style rear light panel, all topped off with a few more liberally applied coats of matt grey. He also fabricated his own custom rear diffuser out of 3mm aluminium, which is bolted under the rear bumper to a custom frame that is welded to the chassis.

'The diffuser and lights really changed the look of the rear of the car,' recalls Chris. 'But I still needed to run the exhaust somewhere so decided on a raised centre-exit item so as not to mess up the new diffuser.'

Local exhaust company
Greenwood Silencers knocked

up the custom system from 2.5in bore stainless steel with de-cat and finishing in an M2 Spoon-style backbox, which exits out of the centre of the rear bumper. It not only looks and sounds the part, but also unleashes a few extra ponies.

'I finished off the rear of the car with some custom vents that I made by chopping up an aluminium bumper vent I got from Back Yard Civics. It really suits the centre exit and aids airflow through the rear bumper, rather than it acting like a parachute and slowing the car down with loads of drag.'

And with the bodywork now looking much more muscular, Chris moved on to the motor, which had an oil leak and a worn key-way on the crank from the woodruff key. This is a

common problem on MX-5s. and can be identified by a wobbly crank pulley. However, it's not too difficult to fix, and Chris got his welder out and sorted it quick smart. Along with giving it a full service, he also fitted all new oil seals, water pump and timing belt as well as installing a full yellow Stoney Racing silicone hose kit, an APS oil catch tank, Demon Motorsport purple hose fittings, removing the cam cover to reveal a pair of lightweight purple cam gears, a GC Fabrications strut brace and painted the rocker cover in wrinkle black.

'I've gotten a bit of stick for having a car that looks like this but without the big power to back it up,' Chris reports. 'But it's an ongoing project, and I'm





TECHSPEC

ENGINE:

1.8-litre, 4-cyl, 16v Eunos import engine, full Stoney Racing silicone hose kit, custom yellow induction hose, enclosed air filter, black wrinkle painted cut rocker cover with weld-on AN6 fitting, purple cam gears, APS oil catch tank, Demon Motorsport purple hose fittings. GC Fab strut brace. full straight through custom exhaust system with Spoon M2 backbox exiting through the centre of the rear bumper

TRANSMISSION:

Factory five-speed manual

SUSPENSION:

HSD Dualtech coilovers, Flowflex polyurethane bushes, adjustable drop links front and rear

All new brake pipes, all new calipers, Hel braided brake lines, EBC discs with EBC GreenStuff pads, Super Blue race brake fluid

WHEELS AND TYRES:

8x15in ET0 Rota Grid V wheels painted yellow with 195/50/15 Yokohama Parada Spec 2 tyres, 17mm spacers (front), 20mm spacers (rear)

EXTERIOR:

Bomex Type 2 front bumper, custom front splitter, Bomex side skirts, custom feed side skirts, MR2 bonnet vent, custom rear diffuser, Fast5 wide bolt-on arches, Japspeed high-level rear spoiler, MD1K ducktail spoiler, MD1K Garage Vary-style rear light panel, BYC rear diffuser vents, Chargespeed wing vents, hardtop with carbon Miata spoiler, painted in matt grey

INTERIOR:

OMP champ bucket seats, yellow STR harnesses, Kode deep-dish steering wheel with snap-off boss, GC Fabrications rollcage, Zilla gearknob, flocked dash and door cards

THANKS:

Big thanks to my Gran and Grandad, my girlfriend Chloe, Kev Laverick for all his help and parts, Grant Canham (GCF) Kanjo Racing Crew, everyone on Jap2Jap

so it's a better base for adding more power with forced induction later on, without risking anything going bang!'

And that's a really sensible way to go about it, as it's no good slapping a turbo on a sick engine, as it's a sure fire way to

attention that Chris's car received from its day on display at Japfest 2, we'd say that a turbo conversion would be a nice addition, but it would only serve as the cherry on what is still a pretty tasty, and downright financially frugal, cake.



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SNAPPING AT THE HEELS OF THE MIGHTY KEN BLOCK, JAKE ARCHER AND HIS KILLER KAMIKAZE RACING SUBARU VAN ARE A FORCE TO BE RECKONED WITH!

WORDS: NICK TURNER PICS: DAN SHERWOOD





f any of you are followers of gymkhana then chances are you've heard of our mate
Jake Archer. We're not talking about the type of gymkhana where you see tarted-up nags clip-clopping around a field in a fancy pattern, either. We're talking about the full-on automotive dance that requires precision timing and superherolike reflexes!

Jake's journey starts way back when he was just a young lad, and what a journey it's been!

'I've been into cars since I can remember and have always been a huge motorsport fan, whether it be motocross, Formula One or touring cars,' Mr Archer tells us.

Jake grew up in the 'Max Power' era, back when lowpowered cars were stacked full of audio and loaded up with body filler and neon lighting. Jake owned his fair share of them, too, including two Novas, a pair of Corsas and a couple of Peugeots – trademark Southend seafront cruisers! It wasn't until he experienced the thrill that only rear-wheel drive Jap machinery can provide that he turned to the Jap side.

'I went out with a lad at
Ultimate Street Car in a drift taxi
and was hooked!' he explains. As
soon as he was back home, Jake
logged onto eBay and went on
the hunt for something that would
quench his thirst for drifting. After
a while he took a punt and
placed a low bid on a skid-happy
Nissan 200SX S14a. Not really
expecting to win it, he was
surprised when he woke the
next morning to discover that he
was now the new owner of his
very own drift toy!

If something seems too good

to be true, it usually is, and in the case of Jake's cheap Nissan, it was definitely cheap for a reason. On the way back from collecting the car the S14 gave up and dropped the entire contents of its engine all over the road. Understandably he was gutted that his new purchase didn't even make the trip home, but he was determined to not let his drift dream die. Jake trailered the broken Nissan home where the old engine was replaced and he was back on the road in no time at all. As soon as he could, he signed up to one of Santa Pod's many regular Drift What You Brung days that are open to anyone who wants to take a stab at drifting. Jake quickly got the hang of things and became quite the natural, but his competitive personality drove him to take things further...

KAMIKAZE RACING
THESE GUYS ARE THE BRAINS
BEHIND THE BRAWN AND,
WITHOUT THEM, NONE OF THIS
WOULD BE POSSIBLE! ALTHOUGH
THEY SPECIALISE IN SUBARUS, THE
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At the same time that he was chomped on by the drift bug, his good friend RJ was in the middle of turning his 1996 Subaru Impreza wagon into a work van for his company, Midland Subaru. The rear windows were panelled up and both rear doors welded and smoothed to a seamless finish. However, it quickly became apparent that running the Scooby as a parts van was way too expensive on fuel so





things took a rapid change of direction and the van was put to much better use.

Seeing how quickly Jake's driving was getting noticed gave the lads an idea. RJ was expanding Midland Subaru into other Japanese models, eventually evolving into the company that it is today – Kamikaze Racing. So with all his time dedicated to building up the new business and its reputation, RJ decided that the best way to give his fledgling tuning company

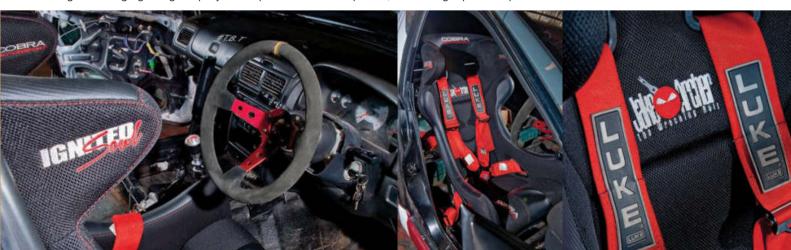
a large dose of promotion was to sponsor Jake as he entered the arena of competitive motorsport, and handed the keys to the Scooby van over to him.

The first event that Jake and the Impreza entered was the Fueltopia Barrel Sprint. This event is a cross between drag racing, gymkhana and drifting. Drivers have a dedicated lane and three barrels around which they must navigate – the winner obviously being the one to cross the line in the quickest time. Once qualified,

the fastest 16 then go on to a knock-out tournament. Jake came in with a very respectable eighth place at his first attempt, and it was clear that the Subaru had found its purpose in life as a competition car.

He was still a way off the podium, but eighth was a great position to pop his and the car's racing cherry, but it was never going to be good enough for Jake and RJ. In order to improve upon the result and to climb a few rungs up the competition

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ladder, RJ and the team at Kamikaze dedicated time to further refining the car. The Impreza was built with three events in mind: Fueltopia Barrel Sprint, Gymkhana Grid and Gymkhana Kings. They knew they were up against a range of stiff competitors with serious cars, including the world-renowned

gymkhana king himself, Ken Block in his 650bhp Fiesta. Still, these guys aren't ones to shy away from a challenge!

Under the bonnet is an Aladdin's cave of Kamikaze home-built performance products, including a fully forged long block with 1000cc flowed injectors. The standard turbo has Owen Developments hybrid unit, which has allowed boost to be safely pushed higher. Fuelling has also been taken care of thanks to an external fuel pump and anti-surge fuel tank for when Jake's chucking the car round barrels all day long. Helping to keep the engine cool whilst the tyres get cooked is a Japspeed high-flow aluminium core radiator and front-mounted intercooler, while a custom three-inch exhaust system and downpipe, that has been custom made in

house at Kamikaze, allows the

burble. The whole lot makes for

Subaru to sing its distinctive

455lb ft of torque.

Of course the chassis has also had its fair share of goodies fitted to enable Jake to get that power down and the arse out! Tried and tested fully adjustable BC coilovers have been installed along with front and rear strut braces to keep that long body straight. In terms of transmission, the standard five-speed gearbox has been binned in favour of a much stronger six-speed version to give extra reliability - an essential attribute for a gearbox that takes as much abuse as Jake dishes out every time he takes the Scooby for a spin.

But this kind of hoonage and down-right tyre-torturing

FORMULA G

FORMULA G GYMKHANA IS A BRAND NEW GRIP EVENT BORN OUT OF THE UK. THIS RACE SERIES SEES AWD, RWD AND FWD CARS GO HEAD-TO-HEAD ON A PRE-SET COURSE AGAINST THE CLOCK. DRIVERS ARE PITTED AGAINST ON A PRE-SET COURSE AGAINST THE CLOCK, DRIVERS ARE PITTED AGAINST A RANGE OF OBSTACLES LITTERED AROUND THE TRACK, INCLUDING THE FEARSOME WASHING MACHINE AND THE MIND-BENDING CHAIN-LINK. THE TOP 16 DRIVERS FROM QUALIFYING WILL MOVE ONTO THE 'BATTLES' AND FROM THERE INTO THE FINALS. THE EVENT IS HELD PRIMARILY AT SANTA POD RACEWAY AND HAS BEEN CREATED BY FUELTOPIA, THE SAME TEAM BEHIND BARREL SPRINT. CLASSES ARE OPEN TO ALL VEHICLES WITH THE ONLY REQUIREMENT BEING A WORKING HANDBRAKE. FOR MORE INFO AND TO FIND OUT THE LATEST NEWS CHECK OUT THE FACEBOOK PAGE: FORMULA G CHAMPIONSHIP





hooliganism is all good fun, until someone gets hurt. So to stop that happening, the lads have worked hard on getting the perfect brake setup sorted. Both front and rear brakes have been upgraded to give Jake enough stopping power to rein the van back in. An SFS brake line kit has also been added and a hydraulic handbrake gets the Subaru sideways in the blink of an eye. A full set of Nankang NS2R tyres have been wrapped around freshly painted 8x17in Rota Boost alloys and fitted to the car.

As expected the interior is simple to say the least, being fully stripped with only the essentials

on show. A pair of arse pinching Cobra Sebring Pro bucket seats with five-point Luke harness is all Jake needs to go into battle.

And into battle he goes! Last year Jake and the van competed in the Gymkhana Grid series. After a weekend of heavy competition the field was whittled down and Jake was left standing to go into the final against Ken Block himself.

'When I first started this motorsport I was showing my mum Ken's videos and jokingly saying, "I'll race him one day", now that moment was here and I loved every second of it!' Jake excitedly tells us. Jake pushed

himself and the van to its limits and, despite coming second, was over the moon with his performance, and rightly so! Timing wise, he was only one second off Ken's time, and when you consider Mr. Block is a World-class WRC and X-Games veteran, competing in a fullyprepared 650bhp rallycross-style monster costing well over £200k, against a relative novice in a stripped out Classic Impreza van, it really does show what a great achievement that was. And one that he and everyone at Kamikaze should be truly proud of. Great work guys! 11



ENGIN

2.0-litre, 4-cyl, 16v EJ20, Kamikaze
Racing fully-forged long block, flowed
injectors, anti-surge fuel tank, 1000cc
flowed injectors, power steering cooler,
Owen Developments hybrid turbo,
Bosch external fuel pump, RCM in-tank
fuel pump, modified oil pump, baffled
sump, Japspeed alloy radiator, frontmounted intercooler, custom 3in exhaust
system, SFS full hose kit, ESL ECU with
full custom motorsport functions,
mapped by Race Dynamics

PERFORMANCE

470bhp, 455lb ft of torque

TRANSMISSION

6-speed gearbox with mappable diff controller, Kamikaze Racing rear LSD

SUSPENSION

BC fully adjustable coilovers and top mounts, front and rear strut braces, Kamikaze Racing modified rear sub frame, SuperPro poly bushes all round

BRAKES

SFS full brake line kit, Kamikaze Racing rear brake conversion, hydraulic handbrake

WHEELS & TYRES

8x17in Rota Boost alloys with 215/40/17 Nankang NS2R tyres

INTERIOR

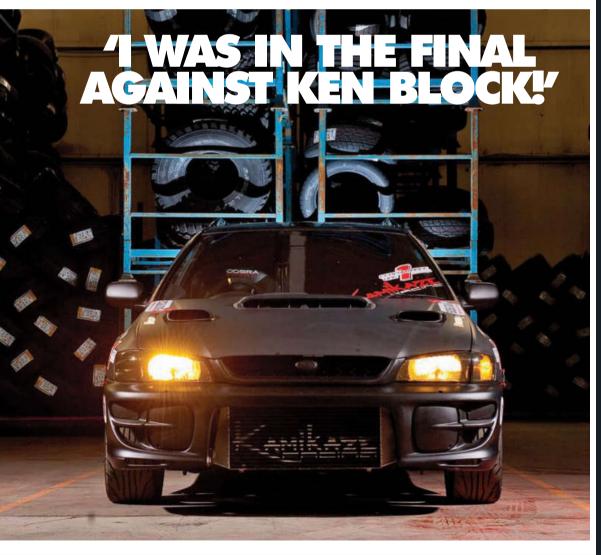
Cobra Sebring Pro bucket seat with 5-point Luke harnesses, Kamikaze Racing snap-off steering wheel

EXTERIOR

Kamikaze Racing custom jacking points, modified front bumper, Boss Dog vinyl wrap, Eastcote customs custom made front wings, Subaru rear wings

THANKS

Kamikaze Racing, Nankang Tyres UK, SFS performance hoses, Enduring Solutions Limited, Race Dynamics, Boss Dog, Shining Monkey, Ignited Soul, Eastcote Customs, ORP Motorsport, Japspeed, Roger Clarke Motorsport, Compbrake, Super Pro, Cobra Seats, Rota Wheels, Nispro Performance, Andy and Linda for everything they have ever done! Dilly and the boys at ATS, my amazing girlfriend Amy and all my family for all the help and support.











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knew his fate was sealed he immediately started stripping the car down around the back of his house. One-man band sounds about right.

We should explain that
Darren is a mechanic by day,
working in the family business,
Melbourn Garage in Royston,
Hertfordshire, so he knows his
way around a motor. He bought
the car back in 2007, after
hearing it whizzing around a
local village: 'It was the noise
that got me more than anything.
Even though it only had an air
filter and a backbox on it,

face every time you drive it.'

Then he got banned. For those 15 painful months, Darren spent pretty much every evening and weekend turning this old Honda into something he could be really proud of. 'I didn't really think it would go as far as it did, but one part led to another and, before I knew it, the car was stripped to a bare rolling shell! The first job I tackled was a wire tuck,' he explains, 'I like neat engine bays so I decided to smooth it all over, too. Then I found a cage, decided to rebuild the

work properly, such as highcompression pistons, valvesprings, etc. Then I thought I may as well put individual throttle bodies on it, too.'

The cams were found on a forum but the throttle bodies were bought brand spanking new from Jenvey. Most of the engine internals were bought from the States, but not in the same way most people buy parts from the States. Darren went on holiday to New York. For most people this is a chance to see the sights and sounds of the Big Apple.

S300 engine management and was mapped by Daz at DNR Engineering in Banbury, although I had to change the exhaust because he said it was too loud and he couldn't hear what he was doing!'

The exhaust on the car is a homebuilt 2.75in stainless steel system. Darren admits it's probably a touch too large in diameter, but at least it allows the engine to breathe at high revs. He bought a selection of stainless steel straight pipes and bends, then it was just a case of measuring, cutting and

PEAK POWER COMES IN AT A STAGGERING 8700RPM!

it sounded like a racecar.'

As it turned out, the owner was a friend of a friend. Some gentle arm-twisting later and Darren was the proud owner. A few months passed and he bought the wheels that are still on it today, a set of 16in Inovits that have the looks of Volks TE37s without the hefty price tag. Then he stripped the interior, adding: 'I wanted it really light. I was going to a lot of car meets at the time and had a lot of fun, it's one of those cars that puts a smile on your

engine and the spec just grew from there.'

As you can see from the photos, Darren did a cracking job on the wire tuck and engine bay smoothing. It's one of the smartest B-series engine bays you'll ever see. The engine itself is the original B16A1, a 1.6-litre DOHC VTEC four-cylinder that puts out around 150bhp in standard trim. The tuning sort of happened by accident. Darren explains: 'I bought a set of cams and then realised I needed other bits to make them

Darren, however, ordered a load of car parts online and had them delivered to his hotel room! When he got home he was surprised to find a set of Wiseco high-compression pistons, Eagle rods and ARP bolts had somehow managed to smuggle themselves into his suitcase!

Darren carefully built up the engine with a clear goal in mind: 'I wanted the engine to make 200bhp without having to resort to a turbo or supercharger. It's on Hondata

welding. Sounds easy when you put it like that, doesn't it? It saved him a fair few quid, though, but he admits the original one-box system was a bit too anti-social. So he's since added a small middle silencer to quieten it down to 'really flippin' loud' instead.

After tuning, the engine made an impressive 205bhp. Exactly what Darren was after. You can imagine the awesome soundtrack produced by the combination of 48mm throttle bodies, a free-flowing exhaust



and 9500rpm, too. There aren't any wasted revs, either, as peak power comes in at a staggering 8700rpm! With hardly any weight to pull around, this is one quick and agile old Civic.

To reduce weight further, Darren has stripped out the rear and replaced the rear windows with Lexan ones from Plastics4Performance. He's also been very careful to resist adding any unnecessary weight, either. The original

shape is so good that Darren didn't want a load of bolt-on arches and spoilers. Instead, he's fitted a simple J's Racing front lip made of polyurethane so it will bend rather than break if it hits a speed bump - and a subtle rear diffuser.

The whole car has been resprayed in pearl white, which, along with the mapping, is the only part of the car Darren hasn't done. He adds: 'I did prep the car fully myself,

A QUICK DASH
STACK DASHES ARE NOT CHEAP BUT IT WAS ONE OF THOSE ITEMS DARREN
HAD TO HAVE. BOUGHT BRAND SPANKING NEW, DARREN USES IT TO
SCROLL THROUGH HIS VARIOUS ENGINE TEMPERATURES AND PRESSURES
TO MAKE SURE EVERYTHING IS RUNNING SPOT ON. IT RECORDS PEAK
VALUES AND EVEN HAS A LAP TIMER. OH, AND IT LOOKS PRETTY, TOO

though. That took a while!' The paint was applied by Drayton's in Barley and the finish is flawless. This older generation of Hondas just look perfect in white, don't you think?

Darren certainly does. He's trawled the Internet, picking up inspiration wherever he can to

get ideas for his car. He's often on the fourth generation Civic forum 4GUK, or Honda-Tech. The latter being particularly helpful when it came to selecting the engine and drivetrain components.

You'll notice from the tech spec that Darren has swapped













TECHSPEC

1.6-litre, 4-cyl, B16A1 naturally aspirated engine, fully balanced bottom end built on stock crank with Eagle H-beam con-rods and 0.5mm oversized Wiseco high compression pistons, DC2 Integra Type-R crank girdle, DC2 Integra Type-R oil pick up, Moroso baffled sump, ACL bearings, ARP con rod bolts, ARP head studs, ported and polished B16A1 cylinder head fitted with Supertech flat-face valves, Supertech valve springs, valve guides and retainers, BuddyClub spec 4 cams, Skunk 2 adjustable cam pulleys, 48mm Jenvey individual throttle bodies, RC Engineering 330cc fuel injectors, Hytech tri-y exhaust manifold, custom 2.75in exhaust, Hondata S300 ECU mapped by Daz at DNR Engineering

Power: 205bhp Torque: 127lb ft

TRANSMISSION

Y1 5-speed manual gearbox with Quaife ATB LSD, uprated clutch and lightweight flywheel

SUSPENSION

D2 coilovers, D2 rear lower control arms, DIY fast road alignment

BRAKES

Honda Legend twin-pot calipers, 282mm ventilated discs from an MGZR, Ferodo DS2500 pads, Integra Type-R master cylinder

WHEELS & TYRES

6.5x16in ET38 Inovit ST6 wheels with 195/45/16 Yokohama S-drive tyres (front) and Continental Contact Sport tyres (rear)

EXTERIOR

Resprayed in pearl white, J's Racing style polyurethane front lip, rear diffuser, Plastics4Performance Lexan rear screen and rear side windows

Stripped interior with Sparco Pro 2000 bucket seats, Willans harnesses, Sparco steering wheel, Stack dash, flocked dash and door cards, Fabricage bolt-in rollcage, custom carbon-fibre dash inserts, binnacle surround and floor mats







GOING AGAINST THE GRAIN
WHEN IT CAME TO SELECTING AN EXHAUST MANIFOLD, DARREN WENT
AGAINST CONVENTIONAL WISDOM. HIS ENGINE IS TUNED TO MAKE POWER
AT THE TOP-END, TRADITIONAL THINKING IS YOU NEED A 4-1 SETUP TO
MAKE TOP-END POWER. HOWEVER, DARREN HAS SEEN A TEST IN THE STATES
WHERE A 4-2-1 MANIFOLD MADE ALMOST AS MUCH TOP-END POWER AS A
4-1, WITH SIGNIFICANTLY MORE POWER AND TORQUE IN THE MIDRANGE.
REASONING HIS CAR WOULD BE USED PRIMARILY ON THE ROAD, HE WENT FOR A 4-2-1 IMPORTED FROM AMERICA FOR THE EXTRA FLEXIBILITY AND THROTTLE RESPONSE. OVER THERE A 4-2-1 MANIFOLD IS CALLED A 'TRI-Y HEADER', BECAUSE THE DESIGN PRODUCES THREE 'Y' SHAPES.

the original Y2 gearbox for a Y1. Why the swap? Darren answers in his typical laid-back fashion: 'My friend was selling it cheap and I just fancied trying it!' The Y1 gearbox was fitted to JDM CRX and Civic SiRs, and features closer gearing and a slightly higher final drive ratio than the Y2, for better acceleration.

The key fact about Darren's car is that it's built to be driven. He's come up with his own

brake conversion on the front, using a pair of twin-pot brake calipers from a Honda Legend that bolted straight up to the original carriers, while the suspension has been uprated with D2 adjustable coilovers and lower arms. Darren set-up the suspension himself, and after searching online and doing some experimentation, has

found his own fast-road setup that really works. You'll notice he's running different tyres front and rear too, it all combines to make this a 'tuned' fast-road car. not just a modified one.

So what does the future hold for Darren and his Civic? Well, it's more a case of what the future might hold for you and Darren's Civic. He's built the car, enjoyed it and is now ready to move on. It represents a time in his life when he turned a negative into a positive, and it's definitely a car the new owner will have fun driving. Just remember to overtake on the

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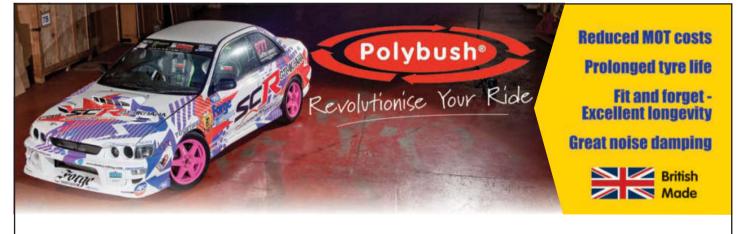












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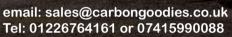
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CARBON-FIBRE IS A WONDERFUL MATERIAL, SO THE OWNER OF THIS SUPERCHARGED SUBARU BRZ ASKS A SIMPLE QUESTION: WHY PAINT IT?

WORDS: DAN GOODYER PICS: DAN SHERWOOD

s questions go it's a good one: Why would you paint carbon-fibre panels? Standing there looking for an answer, the only thing that popped into our head was that you paint it to keep it hidden. Stealthy. Which is the exact opposite of what Matt Tate wants. He loves carbonfibre. Specifically, he loves the weave and the fact it's lighter and stronger than just about anything else. It's a magic combination that he thinks should be celebrated, not hidden away.

He's got a point, of course. For years carbon-fibre was exclusively the material of Formula One and the odd hypercar. So now thats it's filtered down to road cars, why shouldn't we collectively celebrate it? There was a period when unpainted carbon-fibre bonnets were popular, but cars with exposed panels like this one are much rarer. And that's before you get to the supercharger under the

'It's the Nürburgring's fault,' explains Matt with a smile. 'I was invited to go there with my cousin Alex and the guys from Knight Racer, earlier this year. Alex has a 650bhp GT-R and Albert from Knight Racer has one with 870! We went over with a load of other quick stuff and, to be honest, I

was a bit jealous to start with, but when we got there, it made me realise just how good the standard BRZ really is. There's lots about it I wasn't keen on, for example you could hardly hear the engine running when stopped at a set of lights, which I'm sure the engineers worked hard to achieve, but when you're surrounded by noisy, quick cars it just feels like it's lacking something

When he got to the 'Ring, however, Matt realised he'd made the right choice buying the BRZ: 'It handled and stopped really well, the chassis gave me loads of confidence to push right up to the limit. However, all the time I



THE TEIN DAMPERS ARE TEAMED WITH THE EDFC FOR ON-THE-FLY ADJUSTMENTS'



was there, I kept thinking how much better it would be with a few tweaks and especially more horsepower.' So when he returned, Matt didn't waste any time in drawing up a wish-list for his BRZ. The amazing thing isn't just that he's transformed a brand new BRZ, but he's done it in just a couple of months!

Of course he didn't have to look far for the carbon parts. Knight Racer just happen to stock a huge range of carbon-fibre parts on their website (www.knightracer.com). Matt adds: 'I had a few ideas on how I wanted it to look, and also the parts that needed uprating to improve the performance. With the exception of the engine, which was tuned at Litchfield,

the car was transformed at Knight Racer's Milton Keynes HQ.

'I told Albert my thoughts about sideskirts, spoilers, how I wanted the carbon to look and left him to it,' continues Matt.
'They can do everything in-house these days: supplying, fitting, modifying and painting anything. I'm really pleased with how it's turned out. I think the TVR Kandy Red paint works really well with the carbon and wheels, plus it picks out the red highlights inside, like the seat stitching, Sabelt harnesses and dial needles.

'Most of the carbon-fibre on the outside has been sourced through Knight Racer, too. They have a range called Hybrid Carbon that is 100% carbon-fibre and contains no glassfibre, unlike most of the cheaper stuff you can buy. I went for a Varis-style front lip and we added a bit of paint around the vents in the front wings, as a little design feature. I love the wide vents in the Seibon bonnet, too, which was provided by Amber Performance, and with the engine mods they're definitely needed to pull heat through the radiator and out of the engine bay.'

The FA-20 boxer engine is a key part of the BRZ design. Being a flat-four engine, its weight is spread lower and wider than a conventional inline four-cylinder. So although the 2.0-litre naturally-aspirated engine is mounted under the bonnet, it's also behind the front wheels and really low

down. Combined to a sweet sixspeed manual 'box and a light, nimble chassis, the BRZ is rightly marketed as a real driver's car. It just needs a bit more power for speed freaks like Matt.

'After searching around, I decided the Litchfield Spec-S supercharger package would give me the most cost-effective boost in power. It uses a Rotrex supercharger, which is more efficient and can spin at higher speeds than conventional superchargers, and therefore provide more boost. These units have their own oil reservoir for lubrication, too, so it should last a long time.'

The rest of the Litchfield Spec-S conversion includes a large high-flow intercooler that











has been specifically developed to resist pressure drop, to give you maximum throttle response. The hard-pipes supplied are mandrel-bent, and it also comes with Litchfield's own induction kit. The whole kit is fitted and then mapped on Litchfield's dyno setup using Ecutek software. All this for less than £4500.

You can buy a decent used car for £4500, so is it worth it? Absolutely. We don't often mention other magazines but we've all heard of *Evo*, haven't we? In amongst the supercars, they tested a Litchfield BRZ with the Spec-S conversion in one of their Track Car of the Year tests. They loved it. The BRZ is such a great base for a high-

performance car but is crying out for more power, this conversion turns it into the car it should have been from the factory. Effectively making it an aftermarket STi.

However, that still wasn't enough for Matt: 'The Spec-S conversion is advertised as giving 280bhp and 210lb ft of torque, but I was determined to

DRILL SERGEANT
PEOPLE THOUGHT I WAS CRAZY
DRILLING HOLES IN THE
BOOTLID OF MY 2015 CAR!'
LAUGHS MATT. MOST OF THE
TRANSFORMATION WAS
CARRIED OUT AT KNIGHTRACER,
BUT MATT HAS DONE SOME OF
THE MODS HIMSELF. HE ADDS:
'I'VE GOT ABSOLUTELY NO
EXPERIENCE OF DOING THAT,
AND I WAS A BIT NERVOUS TO
BE HONEST, SO I'M PROUD





take mine over 300bhp, which I have.' The extra power was found by adding a few more parts and then jumping back on the dyno for another remap. A Knight Racer stainless steel tubular manifold and sports cat was mated to a Milltek Sport exhaust system, the result of which can only be described as loud. Or maybe angry. Actually, it's both!

With a Knight Racer carbonfibre K&N induction kit, the engine has been back on the dyno a couple of times to perfect the map. With a bit more boost, some more aggressive ignition timing and the fuelling perfected, the Rotrex'd 2.0-litre boxer engine now makes 311bhp. That might not sound a lot, in a world full of big power GT-Rs, but this is light and agile. It's quick and, above all, it's great fun to drive. 'In the wet, the GT-Rs struggle to keep up. I'm actually faster. Which is probably the opposite of what you expect when comparing rear-wheel drive and four-wheel drive cars, but it's true.' Of course, horsepower doesn't make you fast around bends, especially in the wet. Firstly, you need a decent set of rubber to build everything on.

Matt has gone for a set of 225/40/18 Yokohama Paradas stretched over 8x18in Mak Highlands alloy wheels. It's common knowledge that the BRZ was sold with rubber that helped the car move around, to make average drivers feel more involved without having to go quickly. So better rubber is a good step forward. Each wheel is mounted with a 20mm spacer, which gives Matt's BRZ a wider

track and therefore more stability and grip than a standard car.

It looks very purposeful from the outside. The 18in wheels, pushed further out from the BRZ's body, combine perfectly with a 40mm drop thanks to a Tein Flex-Z coilover kit. These offer fantastic road-holding at a great price. The interesting thing is the Flex-Z dampers cannot be rebuilt. Instead, they're designed to be replaced when worn out, which makes sense. New units cost less than the labour involved in rebuilding an old unit, and this also means the units can be sealed at the factory, making them simpler and cheaper to buy. Most importantly, they work extremely well on a road car that does occasional trackday work.

Matt has teamed these dampers with a Tein EDFC, their

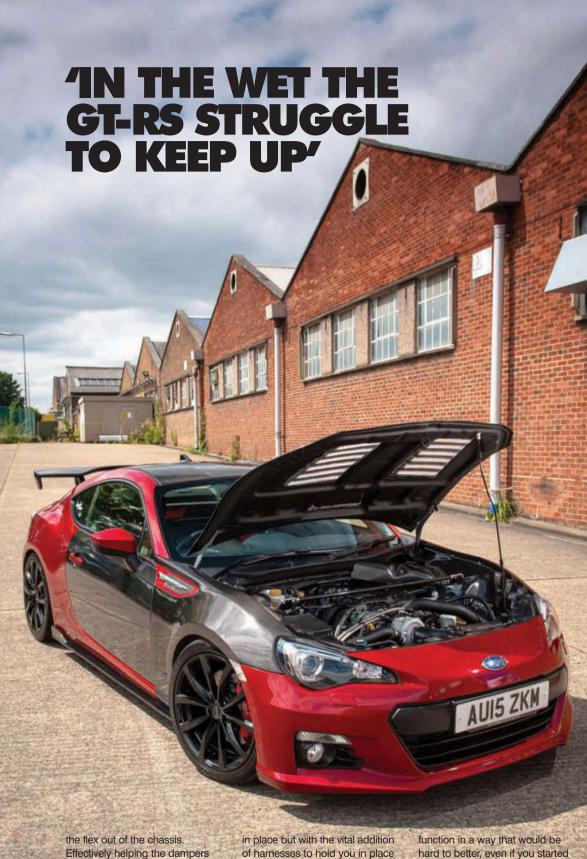
EXPLOSIVE STORY

MATT SPENT SEVEN YEARS IN THE ARMY THAT CHANGED HIS LIFE. HE GOT INJURED IN AFGHANISTAN IN 2012 WHEN A GRENADE EXPLODED AT HIS FEET. HES NOW RETIRED AND USES A WALKING STICK, BUT THAT DOESN'T STOP HIM FROM DRIVING. HIS COMPENSATION HELPED HIM BUILD THE CAR, AND THAT'S EXACTLY WHAT IT'S TURNED OUT TO BE. BY FIGHTING FOR HIS COUNTRY, MATT PUT HIS BODY ON THE LINE. HE'S EARNED THE RIGHT TO ENJOY EVERY DRIVE IN HIS BRZ

Electronic Damping Force
Controller, so he can adjust the
damping stiffness at the touch of
a button, from inside the car,
which you'll notice is missing the
rear seats. The car is also
equipped with a pair of Knight
Racer braces, which are often
overlooked. Braces aren't a
gimmick. In fact, they're ideal for
a road car that's been stiffened
because they help take some of







TECHSPEC

ENGINE

2.0-litre 16v flat-four FA20 'boxer' engine, Litchfield Spec-S Supercharger Performance Package including: Rotrex supercharger, high-flow low pressure drop intercooler, mandrel-bent hard pipes, Litchfield cold-air induction kit and Ecutek software mapped on Litchfield dyno. Knight Racer stainless exhaust manifolds and sports cat, Milltek Sport exhaust system, Knight Racer carbon-fibre K&N induction kit, Knight Racer dry carbon-fibre oil and air-con pump shield, Knight Racer carbon-fibre pulley cover, fuse box cover and engine cover. Next to be fitted: Wizards of NOS nitrous oxide injection kit with 11lb bottle, throttle braided supply line

POWER

311bhp

TRANSMISSION

OE 6-speed manual gearbox, Competition Clutch Stage 2 clutch with lightweight flywheel

RRAKES

D2 6-pot 330mm big brake conversion (front), D2 red 4-pot 330mm big brake conversion (rear)

SUSPENSION

Tein Flex-Z coilover kit (-40mm), Tein Electronic Damping Force Controller, Knight Racer carbon-fibre front upper strut brace, Knight Racer front and rear strut braces

WHEELS & TYRES

8x18in Mak Highlands alloys with 225/40/18 Yokohama Parada tyres, 20mm spacers all round

INTERIOR

86Worx carbon-fibre steering wheel cover, factory SE seats with Sabelt 4-point harnesses, Seibon carbon-fibre rear seat replacement panels, Seibon dry carbon-fibre compartment covers, 86Worx carbon-fibre headunit surround, 86WORX carbon-fibre door top panels, 86WORX carbon-fibre centre vent panel, 86WORX carbon-fibre meter cluster panel, 86WORX carbon-fibre window surrounds

EXTERIOR

Knight Racer carbon-fibre Varis front lip, Seibon carbon-fibre bonnet, Knight Racer carbon-fibre bonnet dampers, carbon-fibre rear diffuser, Knight Racer carbon-fibre AG style rear spoiller, Knight Racer TA carbon-fibre Seibon sideskirts, Knight Racer dry carbon-fibre front wings, Knight Racer carbon-fibre doors, Seibon carbon-fibre wing mirror covers, Seibon carbon-fibre sill trims, full respray by Knight Racer in TVR Kandy Red

the flex out of the chassis.

Effectively helping the dampers out, making the handling more predictable and reducing any annoying squeaks or rattles caused by the combination of stiff suspension and our poor roads.

Returning to that interior, the rear bench seats have indeed been replaced with a lovely bit of carbon-fibre from 86WORX. It's complemented by a carbon piece on top of the dials, too. This doesn't feel like a racecar, however, the original seats are still

on place but with the vital addition of harnesses to hold you in place when driving hard on a circuit. It's more of a clubsport feel than a stripped-out racer, but with all the carbon flying about and no rollcage, it's probably a bit lighter.

So the car that grabs your attention with its bodywork actually has a lot more going on under the surface, too. This isn't a show car, although it could be. It's one of those projects that is so focused on performance that, somewhere along the way, form follows

out trying to make a car purely look good. It's a credit to Matt and his vision, and to Knight Racer and Litchfield for the execution. With its exposed carbon it won't be to everyone's taste, but even those 'haters' will concede it just needs a bit of paint to keep them happy. Personally, we like it exactly as it is. It's bold, it's different. It also proves that when it comes to looks versus performance, you can have your carbon-clad cake and eat it.



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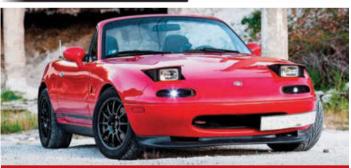


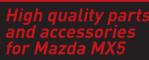






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Every month we bring you the latest and greatest products on the Japanese tuning scene. We always showcase a 'Red Hot' product at the front of the section and also highlight the 'must-have' products at either end of the budgetary scale.

This way you can decide whether to save your pennies to afford the 'Big Spender' or simply splash a little spare pocket change on the more affordable 'Chump Change' product. We hope you enjoy the section but, as usual, if there's anything you think we can do better, then please let us know. Until then...enjoy!



SKUNK2 DROP-IN CAMS FOR HONDA CIVIC EP3 TYPE R

For owners of VTEC-equipped cars, cams are understandably an important topic. After all, the very things that give the hot Hondas their VTEC kick are the cams' variable profiles. Cams are also one of the best ways to increase power on any naturally aspirated engine, but are not always a job that DIY enthusiasts feel equipped to take on themselves. So when we heard about Skunk2's 'Tuner Series' line of drop-in, high-lift camshafts for Honda's K-Series VTEC engines, such as that found in the Civic EP3 Type R, we were keen to find out more.

Designed to be a

straightforward swap for the OEM items they are a much quicker and easier installation for a driveway enthusiast, or will allow drastically reduced labour costs if you decide to let a professional take the strain. The Skunk2 drop-in cams also offer improved mid-range torque and optimised top-end horsepower. In fact, the manufacturer claims a 12–15bhp increase for this upgrade alone, which is an impressive percentage gain.

Installing these cool cams results in seamless VTEC crossover, allowing for the broadest powerband possible while maintaining valvetrain stability under load. Each

camshaft is manufactured from high-quality forged tool steel using advanced CNC grinding techniques, resulting in unique lobe shapes and performance characteristics that can be traced back to Skunk2's wealth of experience in competitive road and drag racing.

Furthermore, these cams incorporate 'Fast Ramp' technology (as used in Formula One) whereby valve seat timing is reduced, thus creating additional cylinder pressure in order to produce more torque.

Price: From £622.10

Contact:

www.tegiwaimports.com or call 01782 334440

IT'S TURBO TIME!

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APSILLE



HYBRID TURBOS T-SHIRT SUMMER SALE

It's more than likely that you'll have spotted a keen show-goer dressed in a Hybrid Turbos t-shirt while you've been wandering around any number of the summer's automotive events. Now you

too can have 'Eat, Sleep, Boost, Repeat', 'Size Matters' and 'I Got 99 Problems, But My Boost Ain't One' slapped across your torso thanks to the Hybrid Turbos summer sale: for a limited time only, these 95% cotton tees are available for just £8.99 each! Sizes range from small to extra large, and a full range of the company's turbo testing and repair services, clothes, turbochargers and blow-off valves can be viewed by visiting www.hybridturbos.com.

Price: £8.99 each

Contact: www.hybridturbos.com

or call 01202 487497

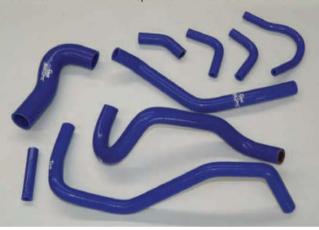


ROOSE MOTORSPORT ANCILLARY HOSE KIT FOR TOYOTA STARLET GT TURBO

The Starlet GT is a compact classic that enjoys a dedicated following from owners who are keen to squeeze every ounce of performance out of the diminutive hatchback's 1.3-litre turbocharged engine. Performance and looks are often equally as important as each other when it comes to updating the tiny Toyota, and it is with that in mind that Roose Motorsport has manufactured a premium quality silicone ancillary hose kit for the model. Colour-coding to the host vehicle is an absolute doddle thanks to a choice of twelve different finishes, and an option of stainless hose clips is offered at the point of purchase. In short, this silicone hose solution will enhance the appearance of any Starlet's engine bay while providing durability and a huge amount of under-bonnet heat resistance when compared to the performance of factory parts.

Price: £153.48 (some colours attract an additional £23.02), hose clip kit £28.62

Contact: www.roosemotorsport.co.uk or call 01522 787187





BALLISTIC EVO2 LIGHTWEIGHT

A car's standard battery is often identified as one of the main offenders when owners find themselves looking for items that they can shed in a bid to reduce the overall weight of their pride and joy. Fortunately, your motor's clunky box of power can be replaced with a lightweight alternative in the form of the Ballistic EV02 16-cell race battery. Designed and built in the USA, this state-of-the-art power pack weighs just 1.6kg and is ideally suited to cars powered by engines packing up to three-litres of displacement. Measuring just 122x86x148mm with 500 cranking amps, the EV02 has a proven track record thanks to its use in the British Touring Car Championship. Each battery is shipped with conversion terminals to enable quick installation (by using your car's existing power leads), and an F1-style holding strap is also supplied with each unit. Price: £299.99

Contact: www.racecarbattery.co.uk or call 01474 771800



ARP HARMONIC BALANCER BOLT KIT FOR NISSAN RB26DETT ENGINE

Nissans equipped with RB26DETT engines are the latest in a long line of Japanese machines to be treated to some high-tensile joy thanks to ARP's decision to manufacture a harmonic balancer bolt kit for the mighty Skyline powerplant.

As the RB26's crankshaft flexes, its damper absorbs an extraordinary amount of energy. Reassuringly, ARP's cold-forged bolt kit ensures that the engine's harmonic balancer is locked into position while this takes place. Each bolt is nominally rated at 200,000psi tensile strength, and comes shipped with an aerospace-grade chamfered washer and a sachet of ARP assembly lubricant.

Price: £36.48

Contact: www.part-box.com or call 0121 557 2707



AUTOBRITE DIRECT 'AUTOGRAPH' HYBRID LUXURY CARNAUBA WAX

Staffordshire detailing outfit, Autobrite Direct, has seen sales of its 'Hellshine Abyss' synthetic paint sealant rocket in recent months. Additionally, its limited edition 'Legacy' wax has been in heavy demand, so what better time than now to launch a specially formulated hybrid carnauba wax that incorporates the best features of both products?! Created as a luxury blend of wax and sealant, 'Autograph' is claimed to produce stunning results and superb water behaviour thanks to a silky smooth application and easy wipe removal. The unmistakable essence of sweet marshmallow fills your nostrils as you open the 200g tub after removing it from its velvet lined, magnet-snap, heavyweight oak carrying box, and a high quality finish is said to be a given thanks to Autobrite's ongoing car care research and development programme.

Price: £85.00

Contact: www.autobritedirect.co.uk

or call 01782 623819

CASIO EDIFICE EQB510D WATCH

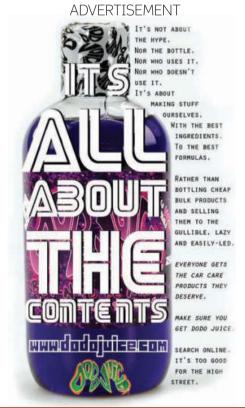
Casio's Edifice brand is an official team partner of Infinity Red Bull Racing F1-Team and, as such, takes inspiration from the arena of top flight motorsport in its design and functionality. The latest EQB510D model to enter the line-up is a multifunction timepiece with a bold design that makes good use of Bluetooth technology, allowing

itself to be paired with a compatible smartphone running a free-todownload Casio app. Aimed at globetrotters, this trick feature allows the watch to automatically adjust to local time wherever in the world you might be. Meanwhile, supplementary dials clearly display the time back home (while adjusting for British Summer Time via the smartphone link), and the app can be used to remotely set alarm calls and incoming email notifications. Solar charging, water resistance, a stopwatch and a speed meter are all standard features of the EQB510D - a fashionable timepiece packed within a beautifully crafted stainless steel housing topped with scratch-resistant glass. Perhaps it's time to treat yourself?! Tee hee!

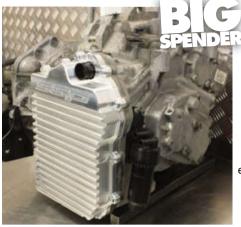
Price: £300

Contact: www.edificewatches.co.uk









TORQUE DEVELOPMENTS EVO X TRANSMISSION REBUILD SERVICE

It might have taken a while to get going, but enthusiasm for tuning Mitsubishi's awesome Evo X is now in full swing, with fans of the model and engineering firms alike squeezing ever more poke out of the lairy Lancer. With great power comes the need for enhanced reliability, and it's good to know that Thurrock-based Torque Developments is on the case with an Evo X automatic transmission rebuild and upgrade service. Let's face it, the X's gearbox is notoriously flaky (and difficult to work with), but Torque Developments has teamed up with transmission expert, SSP Performance, in order to offer uprated internal gearbox components that deliver improved performance and reliability. As you would expect, rebuilds to OEM specifications are also available, but the option of different stages and enhanced cooling upgrades means that you can drive your Evo in anger without fear of transmission failure. Give Torque Developments a call to discuss your requirements.

Price: POA **Contact:** www.tdi-plc.com or call 0800 107 3250

TURBOSMART 'SMART PORT' TWIN DIVERTER VALVE KIT FOR NISSAN R35 GT-R

'Smart Port' is an exciting diverter valve design from Turbosmart that works with the Nissan R35 GT-R's standard mapping to deliver the response of a plumb-back valve with the high performance benefits of a vent-to-atmosphere valve. An aerospace grade alloy piston with a military-spec coating is claimed to provide improved valve response, producing faster turbocharger spool-up while reducing damaging compressor surge. The kit's versatile dual port design allows for increased boost levels for longer than the factory valve that it replaces, while enabling the user to

switch to a fully recirculating or 100% vent-to-atmosphere configuration if required. Hose clamps, gaskets, blanking plugs and vacuum lines are provided with each purchase.

Price: £583.16

www.fr-rtuning-shop.co.uk or call 07594 040272



POWERFLEX ANTI-ROLL BAR BUSHES FOR TOYOTA MR2 W20



The W20 variant of the Toyota MR2 underwent something of a suspension redesign in 1991, with Rev II-V models utilising updated front and rear anti-roll bar bushes. Fortunately, those looking to improve upon the factory-spec bushes fitted to their revised MR2s can now take advantage of polyurethane parts from Powerflex thanks to the Uxbridge firm's decision to expand its catalogue of bushes for the tidy Toyota. For vehicles used in motorsport (or predominantly on track), 'Black Series' editions of these awesome anti-roll bar bushes are available to buy, although road users are advised to stick to the familiar-looking purple parts. As with the entire range of Powerflex products, these bushes are sold at a budget-friendly price and come complete with a nifty lifetime warranty. Price: £17.94 per pair

Black Series: £19.74 per pair

Contact: www.powerflex.co.uk

or call 01895 460033

BILSTEIN CHASSIS UPGRADES FOR MAZDA 3

German suspension expert, Bilstein, has announced the launch of finely-engineered chassis upgrades for the Mazda 3. First up, the B8 range is designed for those who want more damping capability from their Japanese hot hatch, with a marked improvement in handling and reduced squat

and dive. Everyday driveability remains uncompromised it's claimed, and each damper is constructed using the very latest in gas pressure technology and inverted monotube construction. Furthermore, hand finishing ensures that each unit meets even the most stringent of OEM production standards. Bilstein's B14 fixed-rate damper kit is also available for the mighty Mazda, offering a true 'bolt on' suspension solution with a preset damping rate and springs. Both kits deliver between 20mm and 40mm in ride height drop, and both have been extensively tested at Bilstein's world-famous Papenburg test facility. Improved comfort, safety and driving enjoyment from an offthe-shelf suspension package (or two)? That sounds good to us! Price: B8 kit: front £160.80. rear £133.20. B14 kit: £728.40 Contact:

Contact: www.bilstein.de or call 0116 247 8930



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With HEL brake lines you really can take your driving to seventh heaven.



www.helcarkits.co.uk 01392 811 601

II: GARAGE &



HEL! ON WHEELS

HOT OFF THE HONDA PRODUCTION LINE, HEL PERFORMANCE HAS BAGGED ONE OF THE LATEST FK2 CIVIC TYPE RS AND PLANS TO TURN IT INTO A FIRE-BREATHING CHARIOT WORTHY OF SATAN HIMSELF!

There's been much hype about the latest addition to Honda's hot hatch legacy, and with good reason. While for decades the Minato-based company has shunned the use of any form of forced induction in its scorching Type R line up, this new model, designated FK2, has finally

embraced the benefits of boost, and that, my friends, is something to get excited about! Finally, it looks like there will be a Type R, with VTEC, that also has the scope for big aftermarket power gains without resorting to expensive and labour intensive internal engine

work. The fact that straight off of Honda's production line the car can lap the Nürburgring faster than either a Nissan GT-R or a Lamborghini Gallardo LP 560-4 is also a pretty cool party trick, but more importantly means any tuners taking a stab at making the Type R even quicker

have already got an incredibly effective base to start with. Much like R35 Nissan GT-Rs, whose immensely powerful engines and capable chassis have been able to be exploited by tuners to almost unlimited levels, the same meteoric rise could easily occur with the new





With this potential placed firmly at the front of their minds, Hel Performance's head honchos decided that this was

Type R. Let the madness begin!

nonchos decided that this was an opportunity too good to miss, so have secured one of the first cars in the country to begin its development from wild to, er, well, wilder!

Hel's Ben Viner explains: 'After getting bitten by the Honda bug when we ran a supercharged S2000 in the Time Attack series, we've always fancied getting another Red H to play with and the FK2 Type R seems like the perfect candidate.' And being involved with Honda's Yuasa Racing BTCC team – who also happen to run a pair of FK2 Type Rs as their competition cars of choice – has given Hel a distinct advantage when it came to their choice of test driver to help develop the car.

'We sponsor Gordon Shedden, who along with Matt Neal makes up the dynamic duo at Honda Yuasa Racing BTCC team, and asked him if he could be involved with the project, lending his skills to test the car and aid in developing the new products. In fact Gordon picked up our car from the dealer and delivered it to us here at Hel HQ for the project to begin!' Ben explains, 'Since receiving it, we've already developed a brake line kit for the car - naturally - and have big plans to do plenty more in the coming months. To help with the development, we're involving as many UK companies as possible to be part of the process so that the UK can become world leaders in aftermarket parts for the

latest Civic Type R.'

At present, Ben is pretty sure that the Civic will stay as a road car, just with some extra track credentials thrown in, but with a driver like Gordon Shedden lending a hand and previous form for building all-out track monsters, such as their crazy \$2000, it'll be interesting to see where the Civic actually ends up when its full potential is realised. Stay tuned!

CONTACTS Hel Performance www.helperformance.com 01392 811601









II: GARAGE

PROJECT MX-5

It's time for one of our favourite modifications on the MX-5: suspension. No car ever looks and handles at its best fresh from the factory, they all need a helping hand in the form of lowering springs, or in this case, a set of coilovers.

V-Maxx's height and damper adjustable setup was our choice as they allow you to tailor the handling perfectly to your requirements, and come at a reasonable price, too.

We're desperately trying to keep costs to a minimum on this project and, although we're not mechanics, we know what end of a spanner to hold, so we cracked on with fitting the coilovers ourselves. We were fortunate to be able to borrow a ramp in a garage to make the job a little simpler, though!

Armed with plenty of WD-40 we got to work. All in all it was a simple job, but we struggled to set-up the height properly as we're not quite ready to fit the wheels. Saying that, we couldn't resist sorting out some rubber for the Rotas for a test fit the next day. We headed to Top Marks Tyres in Hooley. Luckily for us they had a set of 195/45/15s in stock and as

fitting and balancing comes included in the price, we left happy.

Fitted onto the little MX-5 they looked wicked. So after we've sorted a couple of other little jobs, mainly bodywork (which we're also attempting ourselves), we'll be ready to get the height sorted. Then we'll take the car back to Top Marks for a full four-wheel alignment and then we can give you our verdict on the V-Maxx coilover setup...

CONTACTS

EBC Brakes

www.ebcbrakesdirect.com
Rare Rims

www.Rarerims.co.uk

Top Marks

www.topmarkstyres.co.uk

V-Maxx

www.v-maxx.co.uk Tel 01933 685 840





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II: GARAGE



PROJECT TYPE R

UNDER THE KNIFE

THE TRANSFORMATION HAS BEGUN WITH PROJECT TYPE R GOING IN FOR SOME MINOR COSMETIC SURGERY TO FRESHEN UP THE TIRED AND FADED EXTERIOR

Nothing shows that a car has been looked after by a caring owner better than flawless paintwork. Unfortunately, the Type R's exterior, although looking decent from a distance – around 100 yards away it looked great! – looked decidedly less stellar when you got up close, where it appeared more like a patchwork quilt, with every panel rocking its own individual shade

– more often than not of pink!

To rectify the situation we headed to Milton Keynes-based bodywork specialists Scuff 'N' Scratch Solutions, to see what they could do. As an expert in same-day repairs and alloy wheel refurbishment, Scuff 'N' Scratch Solutions' bossman Rob Clark is used to returning damaged bodywork to its former glory and soon trained

his eagle eye over the Civic's poorly paint to see what could be done.

While initially we felt that the Honda's body panels could be rejuvenated with a simple mop and polish, Rob pointed out that this really wasn't an option.

'The car has seen its fair share of paintwork and much of it is a different shade to the original Milano red, which is known to fade badly in direct sunlight as you can see by the pink roof and rear tailgate,' Rob explained. 'For that reason, you'll never get a uniform colour by mopping alone. There's also a few rust patches around the rear arches, so ideally you'll need a full respray.'

But while this was not something we had budgeted for, Rob and the boys stepped up to







the plate to hook a brother up.

One of the unique selling points of Scuff 'N' Scratch Solutions is that, not only are their prices usually much lower than a traditional bodyshop, but they can turn work around much quicker, too, offering most of their services on a same-day basis, including alloy wheel refurbishing and colour changes, or any other types of work, including custom bodywork and paint.

Rob suggested that they work their magic on the Type R with a 'blow-over' in the original Milano red, plus refurbing the alloys with a lick of gloss black. This way, without going to the extent of a full respray, where glass and doors are often removed, they could give the Civic a really comprehensive refresh without the associated time and money creeping up to exhorbitant levels. We were sold!

But before we dropped the

Honda off for its surgery, we decided to visit local tuning and bodykit specialist Knight Racer to see if they could add some extra aggression to the Civic's smiling face before the new pigment was applied.

Knight Racer has grown in recent years, mainly on the strength of its excellent array of cool carbon fibre products, but they still ship plenty of glassfibre items out to countries all over the world, and their list of applications is huge.

Checking out what was available for the pre-facelift Civic, we picked out a Mugen-style front lip (priced at £125), as we'd seen how the deeper lip splitter added more menace to the Type R's front end on feature and show cars in the past.

Knight Racer makes all of its glassfibre products in-house, so we decided to check out the splitter being made to see it for ourselves. Knight Racer's owner Albert Wong explained that by making all the products themselves, they can ensure the best fit and finish of each item. It also means that they don't have to hold as much stock, as certain items can be quickly made specifically to order.

Dropping the car back to Scuff 'N' Scratch Solutions with the new splitter in tow, Rob suggested they blend in the new item to produce a more factory finish than simply bonding it to the original bumper. This would

THANKS & CONTACTS

Adrian Flux www.adrianflux.co.uk 0800 369 8590

Knight Racer www.knightracer.com 01908 379118

Scuff 'N' Scratch Solutions www.scuffnscratchsolutions. co.uk 01908 377217 involve screwing, bonding and then filling the new addition before painting to ensure a crack free finish that can take the pressure of the extra downforce that it will create.

Rob reckons the whole job will take around two weeks from start to finish, so we'll check back with them soon to see how things are coming along.

– Dan, Editor

INSURANCE

When it comes to bodywork alterations, it's not always clear if it will increase your insurance premium or not. To clear up the conundrum, we spoke to Adrian Flux to see what the score was. Speaking to one of Flux's specialists, it was clear that, while your insurance company should be notified of any alteration to the vehicle, any loading applied to solev cosmetic changes would be dependant on the extent of the mods. If it were a simple 'blow-over' in the original paint, such as on the Civic, or even a full colour change, there would be no loading to the premium. The only time a loading would occur is if the paint used was a significantly more pricey variant or took much more labour to apply - think pearls and flips etc. Adding items such as spoilers, splitters and skirts are other items that shouldn't affect your premium, but if they add up to what could be considered a full bodykit, a loading of up to 10-20% could be applied depending on the insurer.



Japanese Car Insurance

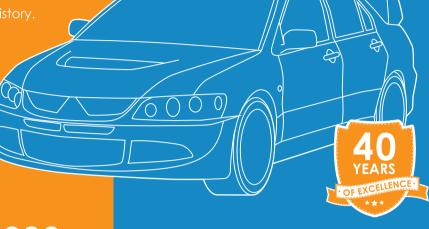
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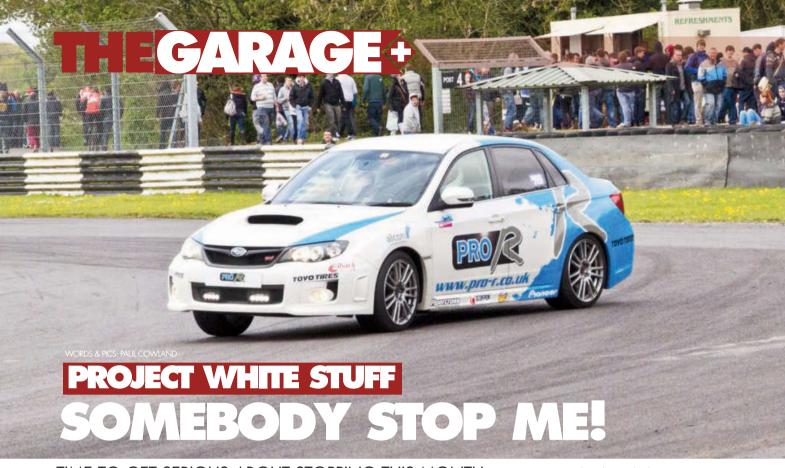
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TIME TO GET SERIOUS ABOUT STOPPING THIS MONTH. AS COWLAND FINALLY BITES THE BULLET AND SORTS THE BRAKES OUT ON THE SUBARU STI...

When you buy any used car, it's always good to check its history; how it has been used, who has been driving it...you know the sort of thing. In the case of my STI, I already knew that the car had had a hard life as Subaru UK's track demo car, being drifted around the most iconic circuits of the UK by the likes of ex-Prodrive set-up guru Mike Wood, Rally ace Jason Sharpe and even BTCC star Tom Onslow-Cole. Yes, this car has been 'enjoyed' from the very second it was first registered on these shores, and although that hasn't really created a problem anywhere else around the motor, where it has understandably taken its toll is on the brakes. Put simply, they're worn out!

This is no fault of the brakes themselves, you understand. In fact, they're rather brilliant, being Alcon units. In preparation for what it knew would be a hard life on track, Subaru themselves had the foresight to fit a brace of the respected firm's six-pot stoppers out front. This gave the car fade-free and progressive braking all day, every day, during its time as a demo, but seeing as I acquired the car with its original discs and pads, as you can imagine, after a considerable kicking from some of the UK's quickest wheelmen, they were more than ready for a change. To be honest, they have been ready for a change since I got the car, but you know how it is with modding budgets...I was eeking things out, and while they continued to work, they were staying in there. Recently though, the pads have been getting wafer thin, so it's not sensible, or safe, to push things any further.

The decision to stay with the Alcon set-up was an easy one. The company not only supplies the cream of the world's automotive brands as an OEM supplier, but also most of the quickest race teams, too! All of the new Formula E cars, for example, rely on Alcon to stop them. All of that technology gets trickled down into the fast road kits, and although the company never pretends to be the cheapest out there, brakes are one area where it's always better to buy on quality,

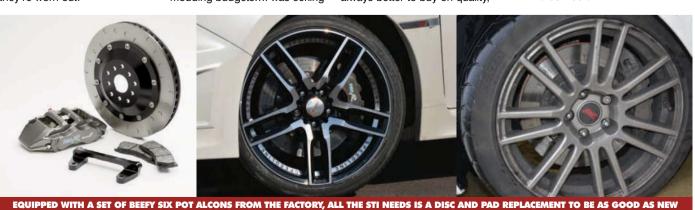
rather than price!

Alcon make all of their stuff here in the UK and have a great spares set-up, so replacing the discs, bells and pads was simply no more complicated than flexing my plastic and carefully speccing what I needed. The calipers and lines were all absolutely fine although they might benefit from a scrub up, perhaps.

As with so many tasks, the parts weren't able to arrive in time for me to get them on for this month's update, but join me for the next issue where we'll be getting them fitted up and bedded in - and I will be reporting back on just how good they really are. Based on the impressive performance of these nearly expired versions, pretty epic I would wager! Until then.

THANKS & CONTACTS

www.subaru.co.uk www.alcon.co.uk



II: GARAGE



PROJECT WRX

IT'S FINALLY HAPPENING! THE ENGINE back on the road. The last issue we came across was the heads, as they were just not salvageable. We

So after a few months out it's back on track. We have run into problem after problem, but think we are well on our way to having this practical street racer back on the road. The last issue we came across was the heads, as they were just not salvageable. We

tried everywhere for secondhand ones and only came up with the same problem – cracks around the valves – and we just couldn't afford for the valves to fall out while on the road. We then had to suck it up and speak to Subaru as, unfortunately,

it's the only way to go and they ain't cheap! But needs must, as they say. The bonus is that at least these are stock items and a big thanks to Subaru as they arrived in a couple of days. It's just a real shame these heads seem to be a little weak, as it is obviously a

















problem area. Obviously there's many reasons why these engines fail. They are built to a high spec and, if treated badly, what do you expect? After all, Formula One cars sometimes only last a few laps, if that!

We also ran into trouble

with the case as the tolerances wouldn't allow us to fit the ARP studs, but thanks to some awesome machining at Gosnay's, these were back and ready for the build up to begin. The crank was machined and polished and away we go...

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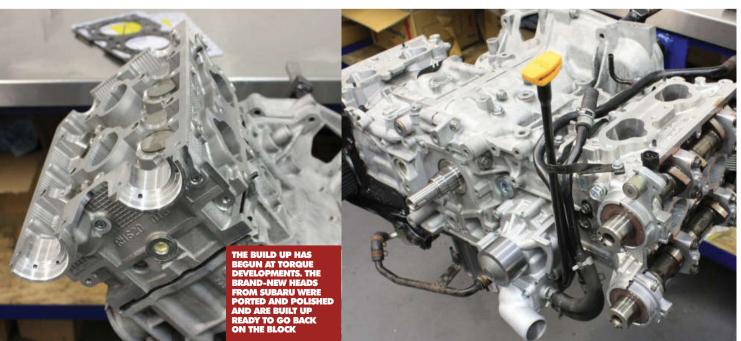
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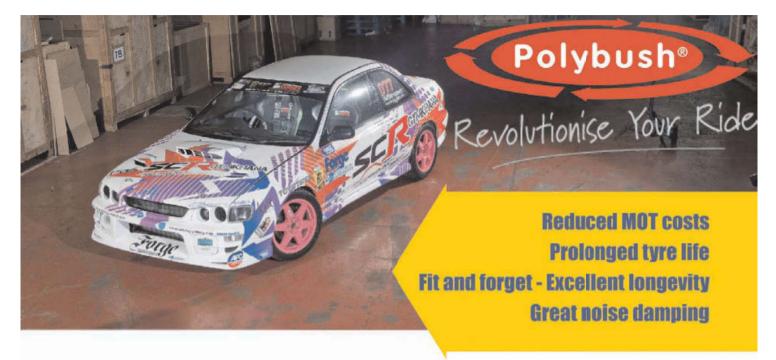
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WELCOME

o one likes to think about their own mortality for too long, as it can be a pretty morbid

experience. After all, once your time is up, it's up, and there's very little you can do about it. However, to ensure we bid farewell to this mortal coil knowing that we have experienced the best that life has to offer, it's only right that we've had the chance to both own and tune some seriously special Japanese machinery. Which is why we have dedicated the August, September and October issues to giving you the best opportunity to do just that. This is the last of the free, three-part guides to buying and tuning nine of the best Japanese performance cars to buy and tune before you die. The second one was free with last month's issue.

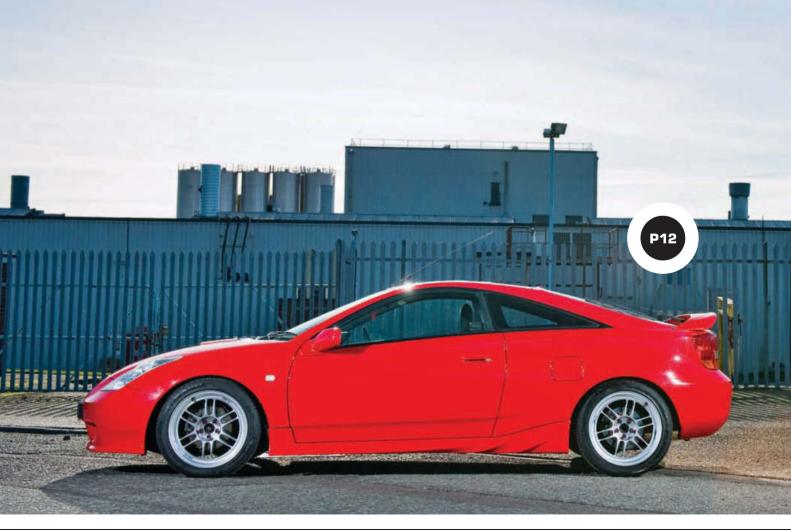
Broken down into three essential instalments, each edition concentrates on the buying information and top tuning tips to allow you to both buy and tune three of our top nine. And, so as not to leave anyone out, we've selected an option for front-wheel drive, rear-wheel drive and four-wheel drive in each issue, so whichever layout of driven wheels floats your boat, each month there'll be something to get your juices flowing and stop your cash burning a hole in your pocket.

This month's issue is focused on the Nissan 200SX S14 starting on page 4, the Subaru Impreza STi starting on page 8 and the Toyota Celica Gen 7 starting on page 12. So don't wait until it's too late, get one of our top nine on your driveway and start ticking them off your automotive bucket list. Take our word for it, whichever option you try, it will be more than worth it! *Dan Sherwood, Editor*

WHAT'S IN?







NISSAN 2005X

BUYING GUIDE

NISSAN'S REAR-DRIVE S14 200SX IS AFFORDABLE, RELIABLE AND EXTREMELY EASY TO TUNE. BUT SUPPLY IS LIMITED, SO BUY ONE BEFORE THEY'RE ALL SNAPPED UP!

low-profile ride until the drift scene grew in popularity, Nissan's 200SX is cheap to buy, comfortable, readily modified and makes an ideal fast road, track or drift car. Sold in the UK as the 200SX, the rear-wheel drive S14 was launched in late 1994, replacing the previous 1.8-litre S13 Silvia. The S14's 197bhp SR20DET 2.0-litre turbocharged engine delivers urgent performance and a top speed of 146mph-plus.

A £2700 Touring Pack added leather trim and an optional four-speed automatic gearbox, which made the car substantially slower, so in our book it's a model that's best avoided.

Revised in October 1996, the facelifted 200SX (or S14a as it became known) had a more aggressive appearance and – on the Touring Pack model – extra side skirts.

A total of 4425 UK cars were sold, of which 80% were manuals.

In Japan, the S14 and S14a Silvias were available in a wide variety of specs and colours, with either a 158bhp normally-aspirated 2.0-litre engine or the 197bhp turbocharged unit. But we'd stick to UK 200SX models or the equivalent Silvia S14 turbo if possible – preferably with a manual gearbox.

WHEELS AND TYRES

UK cars had 16in alloys fitted as standard with 205/55/16 rubber, but the range of aftermarket wheels that fit the S14 is huge. The most common size chosen is 8.5x18in alloys at the front and 9.5x18in rims at the rear. with 225/40/18 and 255/35/18 tyres respectively. But you can modify the arches and suspension geometry to fit almost any combination of width and offset.

BRAKES

The standard brakes on the Nissan 200SX are easily up to the job for fast road use, and warped front discs are a rarity, but most cars now have uprated items fitted anyway. Ask the owner how much the last set of pads cost and inspect the discs and calipers for any signs of rust, especially on imports.

SUSPENSION

Suspension bushes wear out as do shock absorbers - although most owners have fitted aftermarket suspension kits by now. A set of coilovers is a wise first move and a full range of adjustable after-market suspension arms and uprated anti-roll bars are also available to match your needs. The steering system appears very reliable although OE pumps will eventually leak and need replacing.

BODYWORK AND INTERIOR

Most cars will have had some minor bodywork repairs but anything more serious should set alarm bells ringing. Early examples can show signs of rust check the wheel arches, especially the rear ones the suspension turrets and the boot floor and sills. OE exhausts tend to rust but most owners have fitted stainless-steel items to improve breathing.

Trim is dull but wears extremely well. Test every electrical item – including the air conditioning and the alarm. Owners report boot locks that don't work from the key fob, failed heaters (often just the heater fuse) and misbehaving interior lights. And change the wipers on recent imports as Japanese items can fly up at higher speeds.





ISSAN 2005X 514

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ENGINE

The S14's 2.0-litre turbocharged SR20DET engine is a reliable and strong unit which can last for more than 150k miles, but only if tuning has included an uprated fuel pump, fuel pressure regulator and spark plugs and a properly remapped or upgraded ECU. If these items are missing, it's likely any power increases have been done on the cheap and could spell disaster further down the line. Blocked oil feeds to the camshaft cause premature camshaft wear and

possible big-end failure. To prevent this, regular oil changes are recommended every 6000 miles - check with the previous owner to see if there's any history with the car to back these up. A compression test can reveal a blown head gasket and watch out for starting problems, failed lambda sensors, blown air-flow meters and cracked intercoolers and manifolds, which can rob the car of boost leading to over-fuelling and ultimately

reduced power.





TUNING GUIDE

BEFORE YOU TUNE

Although S14s are reliable cars and not overly complex, there's still a few things to look out for when selecting one to tune. First up, being powerful, rear-wheel drive and popular drift cars, a large number of them have kissed kerbs, walls and more in their time, and while properly repaired cars aren't a problem, bent chassis, suspension, and steering arms are well worth looking out for.

More of a problem than accident damage, however, is rust. While S14s aren't particularly rusty cars, minor scrapes, chips, and accident damage often lead to corrosion, so make sure you check thoroughly for any signs. Finally, the engine. A nasty top-end rattle up to around 2000rpm is often a worn VVT sprocket and, while annoying, often isn't a reliability issue, but it's not uncommon for the oil spray bars above the cams to get blocked with sludge, causing far more damaging top end issues.

TUNING PROS AND CONS

The S14's main weak point is that the head uses rocker arms rather than the cams working directly against the valves. With constant high rpm use the rocker arms can snap, resulting in serious engine damage. Also the gearbox can become unreliable when dealing with more than 400bhp, a figure that the engine can easily achieve on stock internals.

The good news is the suspension is MacPherson strut at the front and multi-link on the rear, with every part available as adjustable uprated items. The standard brakes are good, too, and the engine is highly tunable. Also, as one of the most popular cars in the tuning scene, there's a wealth of tuning parts available off the shelf.



STAGE ONE

With over 200bhp and 200lb ft as standard, the 200SX is not slow, but Stage One really wakes things up.

A full 3in exhaust system from the turbo back, ideally including the turbo elbow, will noticeably improve response, power, and torque over the restrictive standard system. Next up is to swap the stock airbox for an induction kit, helping the engine breathe better. The standard intercooler is a very poor wing-mount item which, as well as not doing a great job of cooling the inlet charge, is well known to split and leak, too, so replacing it with a front-mount intercooler will improve reliability and make the car feel stronger on boost, too – especially in hot weather.

The stock fuel pump can't handle much in the way of extra flow, so a swap to an uprated item is needed, too. Finally, it's time to modify the ECU with what Horsham Developments call a Stage 1a chip. This, along with raising the boost to 17psi via a boost controller, should net you around 285bhp and 300lb ft, which totally transforms the car's performance from standard.

The final thing for Stage One is a set of coilovers as, despite its sporty reputation, the S14 200SX is pretty soft as standard. There are countless kits available at a wide range of prices.

STAGE TWO

For this stage, rather than huge changes, we're maximising what we already have, improving performance, handling and reliability. Firstly, swapping the standard injectors for a set of Nismo 550cc items along with a suitable Stage 2a chip, increases the power to a healthy 300bhp and over 300lb ft in torque; maxing out the standard turbocharger.

Although the standard clutch can handle this power with relatively sensible use, there's not much point in owning a car like this and being sensible, so an uprated clutch is on the cards. Exedy and Competition Clutch ones are popular choices, with even basic organic sports clutches often fine at even 400bhp.

Next up, some minor but effective suspension changes, most notably some adjustable rear camber arms and uprated rear subframe mounts. Rear camber arms are cheap to buy, easy to fit, and available from Apex, Driftworks, Japspeed and others. These are useful to correct the excess negative camber that lowering on the coilovers will have given it, giving increased rear grip and less tyre wear. Uprated subframe mounts are also available, and can be either simple locking collars that go over the standard items, or complete replacement items in either polyurethane or solid forms and, by using these to replace the soft and no doubt worn standard items, makes the car feel so much better, especially with the much increased engine performance levels.

Finally for this stage, a little extra cooling. While you should keep the standard viscous fan and shroud, an uprated alloy radiator and oil cooler with thermostatic sandwich plate are very wise moves to keep temperatures under control.



For stage three we're going to take the standard engine and gearbox to their reliable limit, as well as uprate the diff, as the standard viscous item is less than ideal for getting the power down at this big power level. To take the engine to this level is quite simple: as well as the upgrades done in the earlier stages, the addition of a Garrett GT2871R turbo or similar fitted to the standard manifold, a Z32 AFM, 740cc injectors, and some form of mappable engine management is all you need. With some good mapping, 350–400bhp on pump fuel is perfectly possible. Other optional additions at this level are an uprated oil breather system with catch tank, a ported exhaust manifold with external wastegate and rocker arm stoppers to prevent the common problem of snapped rocker arms.

You have a few options regarding the diff – uprate the viscous item, fit a Quaife ATB diff, fit a plated 1.5 or 2-way diff, or weld it up. Uprating a viscous diff is rare these days, but is quite effective for the cost, and can be done - providing you can find a specialist that still offers this service. The most road-friendly uprated diff is the Quaife ATB diff, which - while not being the one you'd want to pick for drift or extreme track use - unlike a plated or welded diff there is no low-speed juddering and no scary noises, making it ideal for a road car. While the most expensive - and less road-friendly due to some clonking noises at low speed – a plated diff is a very popular option for track, drag and drift cars, making sure the power gets put to both wheels every time you want it to, drastically improving traction and car control. The final option is by far the cheapest, and while the least road-friendly, it's not the undrivable death trap popular myth might have you think and is very popular in drifting, and that's a welded diff. This shouldn't cost you more than around £150, and makes both wheels permanently locked. This makes tight turns at low speed very noisy and juddery, and the overall handling characteristics aren't to everyone's tastes, but the low price, and the fact the driver knows the diff is always is locked, makes it very popular for drift use.





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GUIDE

aunched in 1999 and powered by all-aluminium 140bhp and 189bhp 1.8-litre engines, the seventh generation Celica relied on its low 1160kg kerb weight, close-ratio six-speed gearbox, pin-sharp steering and rewarding chassis to provide the thrills. From 1999 the UK received 140bhp cars. which were well specced with 16in allovs as standard.

The 189bhp Celica 190 arrived in October 2000 and boasted VVTLi (variable valve timing lift-intelligent). Revving to 8200rpm, 0–62mph arrived in 7.4 seconds and is the pick of the bunch. All models had leather trim, climate control and a sunroof as standard. Japanese models were badged SS (Super Strut)-I and SS-II, the former powered by the 140bhp engine and the latter by the 189bhp unit.

Facelifted in August 2002 with revised stability and traction control, an optional automatic Celica was sold in Japan – as well as a rare 200bhp TRD Sport M Celica. Toyota launched a Celica GT version in July 2005 with Alcantara upholstery, lowered suspension, body kit, a large rear spoiler and unique 17in alloy wheels before production ceased in 2006.

WHEELS AND TYRES

Corroded, blistered and even rusty alloys have been reported, especially with the OE 16in wheels, although many will feature larger aftermarket alternatives. Some owners also report buckled alloys. Front wheel bearings will go on high-milers and check that there are no signs of uneven tyre wear. Non-matching tyres indicate a careless owner.

BRAKES

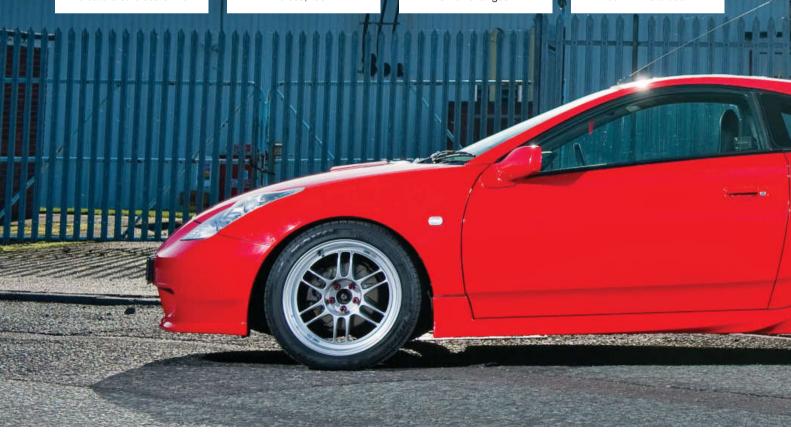
Warped front discs are common and corroded or rusty front and rear discs are also often seen. The brake master cylinder has also been known to fail and – if possible – check for any uneven brake pad wear. Most owners will have fitted uprated brake pads and possibly discs, too.

SUSPENSION

Owners report a handful of power-steering failures, whilst most have – by now – replaced many of the OE suspension components. TTE springs (which were standard on the GT model) drop the car by around 25–30mm. A geometry realignment is recommended at least every two years as the handling is susceptible to small changes.

BODYWORK AND INTERIOR Look out for stone chips

on the bumper, front spoiler, bonnet and wings, as the low steeply-raked nose does tend to catch a fair share of gravel rash. The paint is pretty soft, too, so doors are easily dinged. Paint seems to fade unevenly on red cars (turning pink) and inspect the sunroof for any signs of scratching. Rust, although rare, can affect the door sills, boot, wheel arches and underbody. OE alarms play up and check that the headlights don't go dim - a handful of 190s needed a new ECU to stop this. Any illuminated engine warning lights need to be properly investigated and the problem fixed before you commit to a deal.











ENGINE

GYD2 VKS

The 1.8-litre VVTL-i engines in the 190 models pack a 189bhp punch as standard but are not known to be the strongest engines and correct servicing is essential, so only consider cars packing a full service history showing 10,000mile oil changes and 20,000-mile main service intervals. Make sure that any cars that have been tuned have been done so by an expert, as it's easy to cause problems if you are unfamiliar with these engines, although specialists have been known to successfully add forced induction to both the 140 and 190 engines with great success. Check the oil level and condition, and listen for knocking, rattling or squeaking from the engine. Belts and tensioners can need replacing and some pre-facelift 190s suffered engine failure - possibly due to oil starvation or broken lift bolts. Replace these on a pre-facelift model if not already done. High-milers can use a bit of oil, but if there are any starting problems, walk away.

TUNING GUIDE

BEFORE YOU TUNE

Although the Celica is well built and reliable, there have been oil consumption issues on the pre-2003 1ZZ engines, so remember this when it comes to choosing your purchase. Although there are no other serious weak points, due to their high revving engines, general good care and maintenance is worth looking out for.

Finally, you need to choose whether to go for a 140 or 190. Although it sounds obvious, it's actually not, as the 140bhp model is cheaper to buy and much more economical, while the 190bhp model is faster when driven to the limit, but you do need to take the car over 6200rpm in every gear to make good progress. When it comes to tuning, ultimately, the 190bhp model is a far better base. However, if you want to add forced induction, the power gains are usually very similar, regardless of what engine you start with. Decisions, decisions!

TUNING PROS AND CONS

The Celica may not be the most popular car to tune, but all the main parts are available and, due to their popularity in the USA, you can get a wealth of parts via mail-order. The engines were also used in the Lotus Elise and Exige, meaning uprated internal engine parts are surprisingly common.

One thing many people don't realise is that, while they are both 1.8-litre 16V engines, the 1ZZFE (140) and 2ZZGE (190), are totally different, meaning parts are rarely interchangeable. The 2ZZ has the widest range of performance parts available for it and is the choice for big power, but for milder tuning, or if you want to add forced induction, the 1ZZ is perfectly acceptable.



STAGE ONE

The first stage of improving the Celica begins with an induction kit (short ram intake or cold air intake) which should be available off the shelf from a variety of aftermarket retailers, although a cheaper alternative is simply replacing the panel filter in the OEM airbox with a K&N or TRD item. With the intake sorted it's natural to move on to exhausts. Backboxes are a cheaper alternative than a full system and add visual as well as aural improvements although the excellent stock 190 exhausts have been known to be able to cope with up to 350bhp! Replacing the standard cat with a high flow sports cat will also help the car to breathe better. Unfortunately, a simple remap isn't possible, which is a shame after such basic upgrades.

A LONG LINE OF TOYOTA CELICAS

Fortunately, the highly capable standard ECU will adapt well to these subtle changes, although if you are planning further tuning in the future, an aftermarket ECU is well worth the expense, as it will prove vital beyond this level.

Beyond the engine, a key feature for improvement is the suspension. Lowering springs and uprated dampers are available, however, most owners tend to go straight for the top choice of height adjustable coilovers. When fitted alongside a front upper strut brace, they give a great improvement to the car's already excellent handling and looks.

STAGE TWO

POTENTIAL, WE TAKE A LOOK AT THE LATEST GENERATION IN

Although you can certainly tune the 140bhp 1ZZ-FE VVTI engine, the 190bhp 2ZZ-GE VVTL-I engine is a much better base so, for this feature, we'll focus on that.

First up is the inlet manifold, which, when swapped for a DD Performance inlet manifold and large throttle body can improve power. Individual throttle body conversions have been done, but are rare and costly, and gains haven't been shown to warrant the expense.

The next step at this stage would be to start looking into exhaust manifolds. US suppliers PPE are probably the most commonly used manifolds due to affordability, reliability and their proven gains in power. Others, including TRD, are available but come at a much higher price. PPE also offer two types of manifolds – one for forced induction and one for NA tuning, giving you opportunity to choose a course of action that suits your budget and power requirements.

To help cope with the additional power, some chassis upgrades are in order, but thankfully these are well catered for thanks to parts from Whiteline, who have front and rear adjustable anti-roll bars available, not to mention strut braces and anti-lift kits, and SuperPro who manufacture a full range of uprated polyurethane bushes which will give much improved steering and suspension response to complement that additional power.

At this level of tuning it's also worthwhile thinking about upgrading your braking system. The OEM calipers are capable, if not the most confidence inspiring, and aftermarket brake pads and discs are available, with the most common choice being the old favourite of EBC pads with EBC or MTEC discs, plus a full re-bleed of the brake fluid.



lines, mean the lightweight Celica can be stopped with ease.

If you decide to supercharge or turbo your Celica, then there are a mix of Japanese, US and UK tuners able to supply kits to suit most needs. Off-the-shelf supercharger kits give decent boosts in torque and around 40bhp additional peak power, but note that the Lotus supercharger kits won't fit a Celica without some major alterations due to a different layout and configuration.

The freer flowing head and beefier components in the 2ZZ can handle power up to 300bhp and 300lb ft on standard internals, but to attain power of this level will mean you either have to create the conversion yourself from a selection of parts or speak to a specialist who can put a kit together for you.

Perhaps the best solution for maximum performance on standard internals is a Se7en Motorports supercharger conversion. This uses a Rotrex centrifugal supercharger which, while not delivering as big a punch at low revs as the Japanese Roots-type supercharger kits, is much more efficient and capable of much higher boost levels at high revs due to its excellent low-temperature properties.

At this stage, upgrading the ECU is an absolute necessity. APEX'i and AEM are the most commonly used aftermarket ECUs.

Finally, for those determined to stick with a naturally aspirated build, around 240bhp and 10,000rpm has been achieved on big spec 2ZZs but involves wild profile cams, a ported head with bigger valves, uprated lightweight conrods, very high compression forged pistons and the aforementioned aftermarket inlet manifold and ECU upgrade. A MWR 2.0-litre stroker kit is available, too, if desired, but as with any highly-strung race engine, top quality fuel, oil and frequent maintenance is needed for reliability.

With all of these upgrades a set of uprated injectors and a highflow fuel pump are required to supply the necessary juice.

A Quaife ATB differential would also be a very wise investment to help get the power to the Tarmac and prevent torque-steer and wheelspin.

DD Performance www.ddperformanceresearch.com

Se7en Motorsports www.se7enmotorsports.co.uk

Fensport www.fensport.co.uk

Protuner www.protuner.co.uk

Monkey Wrench Racing www.monkeywrenchracing.com





SUBARU WRX STI

FLAWED IN STANDARD FORM BUT BRILLIANT IN CS400 GUISE, SUBARU'S STI HATCH CERTAINLY SPLITS OPINION. TEMPTED? IF SO, TAKE HEED OF OUR EXPERT BUYING ADVICE

ubaru launched its third-generation Impreza hatchback in April 2007, with the WRX STI revealed in October that year. The car boasted an all-new multi-link rear suspension whilst the DCCD system was revised with Subaru's Intelligent-Drive (SI-Drive) offering three modes – Intelligent, Sport and Sport sharp. Numerous Japanese market and UK limited editions were subsequently produced, including a rally-based WRX STi spec C and a potent Litchfield Type-20. Japanese models retained their 2.0-litre motor whilst the UK kept the 2.5-litre unit, whose reliability has since become the subject of debate.

Following their announcement to quit the WRC in December 2008 Subaru launched a Prodrivetweaked £30,305 326bhp UK STi 330S version in 2009. Capable of hitting 60mph in just 4.4 seconds, goodies included a revised exhaust, 18in alloys and lower suspension.

They also released a limited run of 75 Cosworth Impreza STis, badged CS400, that boasted a 3.7-second 0-to-62mph time and came with a forged 395bhp engine, AP Racing brakes and a branded leather interior. These models signalled the end of the hatch, before Subaru reinstated the STi as a saloon.

WHEELS AND TYRES

Most cars have either 17 or 18in Subaru alloys fitted, which seem largely immune to corrosion. Upgrading the 17in items to 18s (especially in conjunction with a decent set of coilovers) can actually improve steering feel, too. And most 18in tyres aren't much more expensive that 17s, either. 19in rubber, however, is much pricier. Keep an eye out for any kerb marks, too.

BRAKES

Sticking rear brake calipers are quite common on the Impreza hatch, especially on cars left standing for any length of time. The standard Brembo brakes are very reliable and strong enough for occasional trackdays, too, although many owners have chosen to fit uprated pads. Warped front discs suggest excessive heavy braking, and will need replacing.

SUSPENSION

Ride quality on 17 and 18in-alloyed factory cars isn't that hard, so proper upgrading of the suspension needn't come at the cost of comfort. Bushes can wear out, though, especially antiroll bar bushes, and those at the top of the strut mounts. Make sure there is no creaking or knocking from the steering at full lock.

BODYWORK AND INTERIOR

Most STi hatches have

been well looked after but

BUYING GUIDE

> stone chips are still unavoidable - if left untreated, rust can set in quickly. Make sure you inspect all of the underbody, door sills, boot surround and wheel arches for any signs of rust, especially on JDM cars. Also, look for hidden accident damage - uneven panel gaps are a giveaway. STi batteries can easily run flat if the car does repeated short journeys with no lights on, as the alternator doesn't seem to start until the engine is thoroughly warmed up. Check that the climate control/air con works. Seats and trim seem to wear well, whilst a grubby or damaged boot carpet is a bad sign.









ENGINE

The Impreza's 2.5-litre engine is a subject of much debate in Subaru circles, with much concern regarding the motor's reliability, especially when tuning has been carried out. Piston failures (ring land fractures) on the 2.5litre engine seem quite common - both on WRX and STi hatchbacks. To remedy the problem, some owners have had new short-block engine replacements, while others have gone for a bespoke engine rebuild with forged pistons - however, if this is the chosen route, vou need to budget around £2500 for this. Proper custom ECU mapping (£500-plus) may prolong standard engine life - even if no other modifications have been fitted - and some UK cars had this done from 2008-on under warranty by Subaru. UK owners report that claiming a new engine under warranty isn't always easy, but JDM 2.0-litre models (which have a different piston skirt) seem to be largely trouble free, as does the Cosworth CS400, which features much stronger forged pistons straight out of the box.



BEFORE YOU TUNE

As many cars sold through dealers may come with a warranty when you buy them, due to the costs of replacing worn components, not to mention well publicised 'issues' with these cars, a good warranty may be worth its weight in gold - be aware, though; if you are keen to tune the car, almost any tuning will likely invalidate any warranty. A highly detailed service history is preferable too, as not only proof of things such as engine replacements will be a useful thing to see, proof of things such as changes in dealer installed ECU remaps (there has been a few over the years) are also handy to know. Finally, while it's hard to prove, a car that has only run on super unleaded fuel rather than normal unleaded is highly preferable on this quite sensitive engine.

TUNING PROS AND CONS

While just like any other Impreza, the tuning potential of the Shark Eye for road, circuit, drag or rally use is absolutely massive, there's some fairly bad news about the Impreza STi Type UK, and that is engine issues. The problems seem to be twofold. Firstly, the standard pistons are fairly weak and can fail quickly when subjected to detonation. Secondly, and by far the most importantly, there seems to be issues with the standard ECU maps, including the PPP upgrade versions, which can cause lean running and detonation, which quickly kills the weak standard pistons. Aftermarket remaps are actually the most reliable of all, which brings us on to the tuning...

THE GROWN UP IMPREZA, THE HEAVIEST IMPREZA, OR THE MOST REFINED IMPREZA? YOU DECIDE,

WHILE WE SHOW YOU HOW TO TUNE IT...

STAGE ONE

The first stage of tuning for the Impreza STi not only hugely improves performance, but reliability, too.

First up, a performance exhaust system really improves power right across the rev range, speeding up turbo response and giving a meatier sound. While for looks, sound and price, a cat-back system might seem a good idea, it's the downpipe that gives the biggest gains, so a full system really is the way to go. If you have the budget, a heat wrapped or ceramic coated downpipe can reduce underbonnet temperatures, too, which can have reliability benefits.

Next up is an induction kit, which gives a noticeable performance improvement, sounds great, and allows the fitment of a front mount intercooler.

While the standard top-mount intercooler is capable of cooling well beyond this power level, the airflow to it via the bonnet scoop is questionable at high speeds, so considering the fairly fragile nature of the standard engine, a large front-mount intercooler kit is very worthwhile.

The most vital upgrade for this level, and something that none of the above upgrades should be added without, is an ECU remap. Most Subaru tuners in the UK can do this, with ECUTEK most popular.

The final result of this lot is around 330bhp and 370lb ft, not to mention much improved throttle response and, surprisingly, improved reliability too.

STAGE TWO

Stage One actually took the engine tuning to the reliable limit of the standard engine, but now the motor is safe and performing well, it's time to sharpen up the handling a little.

This isn't a small car, in fact it weighs 1.5 tons, and Subaru has placed more of an emphasis on comfort than ever before, so stiffer anti-roll bars, uprated shocks and springs, and poly bushes are the way forward and make a massive difference to handling and grip.

Finally for this level, fitting an air/oil separator or breather system to the engine is known to help long term reliability, as the standard setup is known to suck oil into the inlet tract, which not only lowers the efficiency of the intercooler, but the oil residue slowly lowers efficiency of everything it reaches, including the cylinders themselves, where it can prematurely induce detonation; which is the last thing you want with this engine.



A larger turbo is of course needed, and at this level a direct replacement upgrade is ideal, such as one of the MD321 range from Lateral Performance, or a Forced Performance unit, which is available from UK dealers Owen Developments.

The final main upgrade at this level is the fuel system, with an uprated fuel pump from the likes of Walbro needed, or even an external Bosch pump fed by a separate fuel swirl pot, plus an injector upgrade, with 750cc or larger injectors needed.

Away from the engine, an uprated clutch will be required for all but the gentlest drivers, with an uprated clutch and lightweight flywheel combo usually being the chosen route.

STAGE FOUR

While Stage Three makes a rapid road car, if you want a 600bhp monster, this is where you need to be. The first issue is making the block strong enough, and for that the standard EJ257 semi-closed block needs machining for the fitment of a deck insert, along with the installation of ARP head studs. The forged internals of Stage Three are more than capable at this level, but if you wish you can go for a stroker kit, increasing the capacity, and improving turbo spool-up.

At this level the top-end of the engine will finally need some work, with ported heads, the possibility of bigger valves being fitted, and longer duration camshafts needed too.

Of course, you also need a big turbo to supply enough airflow. You have two main choices here, a GT35-based hybrid turbo that fits in the standard position, or a more hardcore choice of a rotated turbo setup. A rotated setup relocates the turbocharger a little further back, allowing the fitment of a wide range of aftermarket units. If you head down the route of changing the turbo position, a tubular exhaust manifold is also a wise move at this level, with a massive range available in both equal and unequal length designs, depending on how determined you are to keep the traditional flat-four rumble.

While pretty much all components are strained at this level, one part that really can't be ignored is the brakes. The standard Brembo brakes are actually very good, but an upgrade to a big brake kit is a much safer option and is highy recommended.

TUNERS

Andy Forrest Performance www.andyforrestperformance.co.uk

API Impreza www.apiimpreza.com

Flat 4 Online www.flat4online.co.uk

Lateral Performance
www.lateralperformance.co.uk

Litchfield Imports www.litchfieldimports.co.uk

RA Motorsport www.ra-motorsport.co.uk

Roger Clark Motorsport www.rogerclarkmotorsport.co.uk

Scooby Clinic www.scoobyclinic.com

Scooby Parts www.scoobyparts.com

Scooby World www.scoobyworld.co.uk









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